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ERICA,

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TRAVELS IN

MEXICO, SOUTH AMERICA,

ETC. ETC.

By G. T. VIGNE, ESQ.

AUTHOR OF "A PERSONAL VISIT TO GHUZNI, CABUL, AND AFGHANISTAN," AND "TRAVELS IN KASHMIR, LADAK, ETC."

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TRAVELS
IN SOUTH AMERICA, MEXICO,
&c.

TITICACA.

I NOW quitted La Paz to visit the convent of Copacabana, on the Lake of Titicaca. The track lay over an open flat, extensively cultivated. Pretty domed church at Loja. Fine view of the Sorata, Huayna, Potosi, and Illimanni mountains, the three peaks of which rise from the even and unbroken chain on the right of the track. At but a few leagues' distance is the town of Viacha, and at Berenquela, in its vicinity, are not less than 700 excavations for the purpose of procuring silver ore, abandoned for the more lucrative collecting of a copper ore found in sand, and known as barilla, which is found in such quantities at a place called Coro-coro that the adjoining hills are supposed to be as rich in copper as the cerro of Potosi was in silver. A league from Berenquela is a hill (Colpahunia), where brilliant crystals are found, and a green variety also.

About three leagues beyond Loja I obtained a first view of the southern end of the Lake of Titicaca—a dark blue streak, an inlet among low ridges. Five leagues more to the town of Tiaguernaco, said to have been so named after a courier had brought important intelligence to the Inca at that place, who, wondering at the extraordinary speed exerted by the courier, commanded him to rest himself in the woods—"Tia, guernaco!" (sit down, you wild llama). The plain around is bounded by two ridges about eight miles apart, and extended to the lake, which was visible from the village, consisting of a picturesque church rising out of the midst of Aymara Indian huts. On the left of the road, about a mile before arriving, is "Acapana," an ancient mound, seemingly artificial, averaging about fifty feet in height, and about 300 yards long by 200 in width: a small space containing water, which prevented exploration, is left open, and near it, on the surface towards the west plain, is a rectangular area surrounded by huge stones, or slabs, dropped perpendicularly into the ground, apparently selected for their suitable shape, and generally owing little to art, though some of them bore the appearance of having been split off from a larger mass. On the southern side, which was the most perfect, there were twenty-four of them, thirteen of them from six to eight or ten feet in *height, and one* or two in thickness, with smaller

ones in the intervening spaces, altogether occupying an extent of about a hundred yards in length. I thought them very similar, though loftier, to those at Edda Stupe, near Lake Wener, in Sweden. At the two corners north-west and south-west of the side nearest the lake, which is about a league distant to the westward, were the remains of two gates, made up in cromlech fashion by a stone resting upon two others; and similar upright slabs were scattered over the bare surface of the neighbouring mound. A low raised bank running from east towards the west side is met at about five-sixths of the distance from the north side by another and similar bank, now a mere boundary, indicating the existence of an inner quadrangle, in the middle of which three or four huge tablets on the ground are all that remains of a gateway leading into it. The position of the inner quadrangle, at all events, appears to have been determined by that of a small pool of water lying near its centre. A few sheep and llamas were picking up sustenance from the vegetation sparsely scattered over a generally barren space. The village intervenes between the quadrangle and the lake. The high track runs along the northern side of it, and between it and the village is a large conical stone that had once done duty, I think, as a milestone. Parallel to the track, but concealed by its high and reedy banks, is a small *but rather* deep stream which runs into

the lake, and in which I shot some ducks in the evening.

The plaza of Titicaca has four gateways, and is ornamented with some curious old Indian carving. Some of the masonry used by the Spaniards in the construction of the church was, perhaps, taken from the building in the centre. There were grotesquely crowned, winged, and dwarfish figures holding what might be a club or sceptre in either hand; but what attracted my attention was a *relievo*, about two feet high, representing a monkey dancing, and which in India would, I think, have been decidedly believed to be a representation of Hunuman, the invader of Ceylon. In his right hand he held what might have been a pineapple, or a cone, or a loaf of bread, or the top of an ear of maize, with a very similar general appearance to one of the mystic offerings to Sardanapalus on the reliefs in the British Museum. Another head is supported upon the base of a similar cone resting on its apex. One relief, much worn, seems to have represented the sun as a face, with rays radiating from it, but not with the tongue out, as on the almanack stone at Mexico.

On the north side of the village, and about a mile distant, are other ruins, usually known as "the Palace of the Incas." The principal remains are strewed over about an acre, but the *abruptly-sided* inequalities in the plain, with the

corners of angular blocks occasionally visible, are extended over a much larger space. These ruins, with reference to their sharply-cut angles and elaborate smoothing, are of perfect workmanship. A few of the flat slabs are of enormous dimensions; one measures nine yards in length and about five in breadth, and about four feet in thickness, the under edges being slightly chipped off. Shallow and rectangular square seats, chiselled out on the upper surface of masses of light-coloured stone, extending about thirty yards or more in a straight line, seem to have been connected with the administration of justice. I do not think that any earthquake could have placed them as they lie; it is possible they were overthrown by the Spaniards in search of treasure; but they have rather the appearance of never having been put together. They might, perhaps, be restored to their original or intended position. A mere travelling visit would hardly be able to gain a satisfactory idea of the original plan in all its details. A plain in the valley through which runs the great approach to the Lake of Titicaca from the southward would naturally be chosen as the site for a fort whence invasion might be watched and repelled, and its vicinity would soon, under any circumstances, be known as a halting-place for travellers; and the subsequent appearance of a palace and a court of justice would not be improbable at any epoch.

I cannot, however, but suppose the mound of Acapana, with the quadrangle at its foot, to be of as great antiquity as any remains in this part of the continent; that it answered, in conjunction with the mound, as at Hatuncolla, afterwards visited, the purpose of a fort, being at the same time an arena for sacrifice and ceremony, to which water in the pool would be necessarily required. I know of no ancient remains south of Tiaguernaco. (*Vide supra:* Juli.)

It will some day be ascertained whence the blocks were brought. I heard that no stone of the kind is known in the vicinity. In all these old buildings, excepting, I think, those on the island of Titicaca, there is, as in the Cyclopean ruins of the *old* continent, an absence of cement. Occasionally notches on the surface and corresponding projections on the mortice-and-tenon principle, but not in sight, seem to have been used as a means of support; but the nicety with which the adjustment of large surfaces is managed so as to prevent penetration between them, even by the point of a penknife, could not be exceeded, generally speaking, by the workmanship of any country. From this it may be inferred that the shaping process, after that of merely grinding the stones together, must have been performed on the spot. It is probable that this accuracy has always been an *object, in* order to prevent the lodgement and

entry of noxious vermin, with every description of which South America is so rife; and, as the same necessity always continued, the best artificers gradually began to pride themselves on the superior finish and closeness of their work. At Ollientay Tombo a huge mass of rock, seemingly intended as an additional pier for the bridge, is left on the track, having evidently been brought from the opposite mountain through the valley stream. No rollers of any kind were to be seen, and it seemed as if it had been dragged towards its destination or advanced by being turned over and over, in defiance of every obstacle, by the mere force of a multitude. The same conclusion is arrived at with reference to the transportation of the masses at Tiaguernaco from the lake, or possibly from the stream that runs into it there, on which they might have travelled by means of rafts in flood-time. Garcilasso says that the waters of the lake washed their walls, whereas they are now several feet above its surface. I am inclined, however, to doubt that fact, thinking it was merely a manner of expressing himself.

From Titicaca it is four leagues to Huaje, a village with a pretty church and a rich altar-piece. Cultivation of quinoa,* barley, potatoes, and a small quantity of wheat around. The

* Chenopodium Quinoa.

surface of Huaynamarca, as that part of the great lake is named, was blue, fresh, and glistening; the edge very reedy in some places; wild fowl in abundance; the great snowy range of the Bolivian Andes generally in sight to the eastward. Passed round a low grass-covered hill, and arrived at the Desaguadero, in a grassy valley bare of trees, about a mile in width, in sandstone formation, much broken and disturbed, with limestone overtopping it. It is remarkable as being the only known outlet from the great lake, into which flow numerous streams and a few considerable rivers. The Desaguadero is only about fifty yards wide, about twelve to fifteen feet in depth, and its low, green, treeless banks are much fringed with reeds and rushes. Men and horses cross it by the old Indian floating bridge, still retained in use, composed of twenty-four great bundles of reeds firmly lashed together, attached, of course, to each bank, and supporting a thick matting of the same material laid crosswise on them, by way of a pathway for men and mules. There are two others of the same construction lower down the stream. Moorhens, coots, grebes, &c. were playing about in the water close to it. The clear stream was running between three or four miles an hour, and its course is continued southward for about 140 miles into the large lake-like marsh of Aullagas, *behind the ridges* at Oruro, and near the borders

of a desert country,—"that mysterious lake which, while receiving so much water, is without any outlet for it on the surface of the ground."—*Estadistica de Bolivia.*

I was told that at a league or more from the bridge there is a small tribe of about fifty Indians, though formerly more numerous, who speak a different language from the Aymaras, who have no property, and subsist chiefly upon fish. They are called Uroy, or by some similar name.

I was glad to find myself in Peru, and proceeded by Sapita towards the convent of Copacabana, to whose superior, Padre S——, I had been introduced at La Paz, and who kindly offered me the hospitality of his convent. I found there a cathedral church and a large and picturesque group of differently tinted buildings near the edge of the lake, a double-topped hill intervening between it and the convent. The country around was open, undulating, and rocky, with few or no trees, with cultivation and a few gardens here and there, and surrounded by low and nearly treeless mountains. The name Copacabana signifies "the devourer of souls." The monks (formerly Augustines) are Franciscans or Recoletos. Independently of the usual fare, they gave me capital chocolate and a clean room.

Went to a picnic dinner in a garden near the village; terribly long and tiresome affair; everybody *proposing* everybody's health in spirits and

water. Afterwards repaired to some rooms in the outbuildings of the convent set apart for women who come there for religious exercises. They were then occupied by a Spanish gentleman and his pretty wife from La Paz, in consequence of a vow made by her during a severe illness. The evening was finished by dancing the Samo-cocca—several of the ladies having arrived from the picnic — the good monks looking on with all complacency. Some of the men very tipsy. The little fat Commandant was very merry, and knelt to one of the padres for a blessing during the dance, and having heard them reply to his inquiry that I did not go to mass, said that I ought not to have been allowed to sketch the convent; but was very civil the next morning, and went out to see me shoot ducks, which, when brought to the convent, the monks did not care to eat, but begged me to shoot some of the small wild doves for them, everywhere much valued, as already remarked, on account of the flavour they impart to soup.

On Sunday morning the Indians came into the plaza, and many of the women in particular sat down with eggs, fish, fowls, vegetables, &c., for sale. As they did not seem to be in a great hurry to attend the service when the bell rang, the Superior, staff in hand, went out and compelled *them to leave* their baskets and go into the church.

A cross, covered with flowers, had been erected opposite the principal door, and by this stood two or three Indians—"doctrineros," as they are termed,—one of whom repeated with a loud voice, and in the Aymara language, the Articles of Belief in the Creed of Rome, whilst the other Indians knelt and listened. The monks told me that ten of their number gave absolution; that they supervised about 8,000 Indians, who pay four dollars for a mass to the Virgin and two dollars for an ordinary mass. Occasionally they used to flog the Indians under the Spanish rule, and they were lashed to a column, now fallen, in front of the convent. Formerly there were ten missions from La Paz. The Indians once hanged up the image of San Sebastian by the neck because he did not give them the weather they wanted on his fête-day.

Went some two or three miles off to an overgrown garden, where I was shown what was called the Inca's bath, a sort of well, cut out of a solid block of sandstone, nearly six feet deep and four and a half in diameter, with a small drain by which the water was constantly changing. This was an improvement on Montezuma's bath at Tezcreinta, but there was little idea of comfort displayed in either of them. There are also about thirty seats or resting-places cut in the rock near Copacabana.

The loose rocks in the neighbourhood are por-

phyritic, whilst the eye is attracted by the blue lupin flowers, and the air is scented with the odour resembling that of wild thyme, from, I believe, a species of pennyroyal. Oleanders were not uncommon, and I was shown a plant called minumayu, the leaves of which were rubbed on their breasts by Indian women when about to wean their children, but of no use otherwise.

April 23.—Thermometer at 68° in the sun about midday.

The rains begin there in December and finish in March. This year (1855) very little rain has fallen. The hottest weather is in December, before the rains begin.

April 27.—Started for the island of Titicaca, and rode a few miles to the place of embarcation at Yampupata ("the boat aboard"). The strait is about a mile in width, and very deep. The yampas or balsas are great bundles or rafts of reeds, which cannot sink, and are impelled either by sail or paddle. The island rocky, with steep banks covered with shrubs, but few trees. Two leagues from the landing-place is the village of Chalca, where I found some tolerably comfortable accommodation, in consequence of the introduction from the convent. Observed trachyte and porphyry, limestone and sandstone; primroses, lupins, small crops of wheat and barley, beans, &c. On the south-eastern side *of the island* I saw bromelia and Indian plants

among the rocks. Cold fresh morning. Titicaca signifies "the copperstone." Went to see the Temple of the Sun, now a mere roofless room, two stone walls, extending east and west for about fifty paces, with about ten between them, having several windows and niches, but all much overgrown with grass, moss, and climbing plants. I noticed that it had been built with a mortar composed apparently of mud and lime, which would tend to assign it a later date than any other ruins I saw. Near it is the house once occupied by the Virgins of the Sun. They must have been pressed for room, as it does not occupy a space of more than fifteen yards square. The real Titicaca stone—properly, I was informed, Titigaga, or "the rock of lead," and so called from its colour—appeared to be a partly mural-sided mass of cropping-out sandstone, a few yards in width and height, with an artificially cleared space in front of it, so as to resemble a small racket-court, and alike suited as a place for picnics or for the administration of justice. Not far from it, on the top of a declivity which drops down for about two hundred feet into the clear lake, are the ruins of the palace, covering about an acre, and consisting of several small chambers, in one of which, apparently an entrance-court, there is a spring of clear water. There are six niches in the wall on the opposite side of the lake, which

may have been occupied by sentinels. The lake itself, viewed from the high points of the island, is seen to be of vast extent, with the horizon of a sea to the north-west. Its length is generally estimated at about 120 miles, with an average breadth of about forty. The Sorata, as seen across the lake, distant some fifty miles, rises with great majesty, buttressing, with its vast glacier-covered slopes, the northern end of the great Bolivian Corderilla, whose elevation, it may be supposed, is connected with the great hollow now filled by the lake, whose waters, near the island at least, are, though drinkable, perceptibly brackish. The slopes of the Sorata commence about twenty-five miles from the edge of the lake.*

The Illimanni, as seen from La Paz, is a

* The snow-line, according to an average struck by Mr. Pentland from that of different mountains, is about 16,990 feet. He has given 24,200 feet as the height of the Illimanni (called Illhampu by the Indians), and 25,250 feet as that of the Sorata. Commencing from Potosi, Chuquisaca, and Cochabamba, the table-land of La Paz, the height of which had been accurately fixed with reference to the seaboard by numerous barometrical observations, he successfully carried out a careful survey along the eastern bank of the lake (which he estimates at 12,795 British feet above the Pacific, above the highest summit of the Pyrenees, and higher than the Pir Pangal pass into Kashmir), continued it northward to Cusco and the valley of the Vilcomayo, the Apurimac, and the two great passes over the Andes, between Arequipa and Puno, and *between Tacua* and La Paz.

huge white rounded mass with three comparatively small peaks. The Sorata has two shoulders and a central peak, being, however, inferior in beauty, as is every mountain I have ever seen, to the Nunga Parbut, or Diarmul, between Kashmir and Little Thibet.* The Sorata is named by the Indians Anco Humi, or the White Water.

Several small islands are dotted over the surface of the lake. On one, at a great distance, there seemed to be signs of habitation; and on one, named Huata, some five or six miles distant, there are, I was informed, some more ruins; another of them rose in the distance like a pyramid, as if artificially shaped. What with want of sufficient money and traffic, in addition to apathy, and fear that bark and other produce would be smuggled, as it had been, out of Bolivia into Peru, it is a fact, though scarcely credible, that not a single boat existed, excepting the balsas, or native reed-boats, some with two masts and sails, at any port or place on the south or western coast, though the Spaniards have been in possession of the country for above 300 years. One small steamer had been brought in pieces from Lima, but was eventually a failure.

On returning across the strait, the bare red

* 26,629 feet, a peak rising from a mass of 20,000 feet high, *and fifteen miles* round.—G. T. S. survey of India.

and rocky headlands on the right projected from the mainland into the lake have a very remarkable appearance. Clean and angular, as if of yesterday, and sloping upwards above the deep water like vast tiles, somewhat similar to, although larger than, those I have before noticed at the edge of the Bolivian plateau near Tarija, they seem to owe their place and position to the force of some sudden and cataclysmal convulsion rather than to slow upheaval with the course of time; and perhaps the hollow of Titicaca may have been formed as Kashmir, its eastern representative, seems to have been, by the falling in of a volcanic region.

I was ferried across in company with some larger balsas, cargoed with llamas and asses, and remember to have seen only one small fish near the landing-place. I was told that in the open lake there are some much larger than the four kinds I have already mentioned; but I could get no authentic account from any one who had seen them, and should rather doubt the fact.

The Indians about Curba, on the north-east of the lake, retain the old ceremonies and prejudices of the times of the Incas.

Married women are distinguished from others by a peculiar head-dress. A curious fact, connected with the geography round the lake, has been noticed by Mr. Pentland, and I was told of *it also at La Paz*,—that streams rising near the

south-eastern shore are prevented by a ridge from flowing into the lake, and find their way eastward to the Amazons. From the district of Apollobamba, in the same direction, comes, as already mentioned, some of the finest coffee in Bolivia, and also the majority of the native Indian doctors or "charazani," so named after a village on the eastern slope of the Cordillera. They call themselves calaqualla, or sack-bearers; they wander, it is said, even to Mexico, to Lima, Rio Janeiro, and Buenos Ayres, with a bag or wallet at their backs, by which they are easily recognized, full of plants and native remedies, &c. An invalid describes his ailment, and the doctor sells him medicine, and then proceeds on his way. They are reported, and no doubt with truth, to be aware of the medicinal virtues of a great number of plants unknown to the Spaniards, and are said to have pretensions to medical knowledge in family matters such as would throw those of civilized empirics into the shade. I was assured that they had medicines which, applied to the nostrils, would instantly make the nose bleed, and another which, similarly applied, would immediately act as a styptic. I often tried to learn something certain of their medicines, but without success. Paraguay is famous for her balsams, and with them they sometimes perform extraordinary cures. Although they sell medicines, no money,

it is said, will induce them to part with their secrets. In Buenos Ayres they are known as yunqueños. Contrayerva and Pellitory of Spain are natives of South America.

April 26.—Left Copacabana with several ladies and gentlemen, who were riding part of the same way. At the south-western corner of the lake there is a very remarkable ridge of porphyritic rock. Its commencement is not in sight, but it travels continuously over the summit and hollows of the green grass-covered mountains, and finally plunges down a long descent into the lake, with a course and appearance so uniform that it is difficult to avoid imagining a resemblance to a vast serpent, and Señor S—— told me that the Indians had a tradition of its having really been one who had come to drink up the waters of the lake, but that the Inca had destroyed it—a feat which, in any Mahometan country of Central Asia, would have been assigned to the prowess of Solomon, or the sword of the prophet Ali. Ccapia, so spelt for me (in monkish Gothic, I presume), is the name of this part of the sierra, on the west of the lake. It is generally verdant, but comparatively bare of trees, and its heights vary from about four hundred to three and four thousand feet, as they recede from the generally broad, pleasant, flat, and verdant strip of country which intervenes between them and the water.

Arrived late at Pumata (place of lions). Entered the church dedicated to the Twelve Apostles. The inside of the domed roof is curiously divided by groining into twelve compartments. The figure of the Virgin wore a rather broad-brimmed green silk hat.

Thence to Juli (more properly Suli, signifying the hoar frost), the capital of the province of Chuquito. (Chuque-uito is "the Point of Gold" in Aymara.) Juli is a very interesting town, one of six forming the province of Puno, and formerly the chief stronghold of the Jesuits. Here they had their printing-press, and the four principal churches of the town are placed at the points of a cross 300 yards apart, and which I sketched through an archway on an elevation known as that of Santa Barbara. In the Church of the Asuncion is a notice of the life of Pope Clement XIV., originally a Franciscan friar, born at Archangel, in the diocese of Russia, made Cardinal, and Pope, May 19, 1769. In this church also is a portrait of Santa Ursula, and of a Dominican friar drawing sustenance from the breast of a saint, or, as it appeared to me, of the Virgin herself (?) In that of San Juan de Lateran there is some rich carving and gilding, and some highly ornamented frames, and good copies of pictures in fresco. There is a four-sided Latin cross, and latticed roof and cornices, rosettes and coupled

pillars as ornaments, all elaborately cut in sandstone, as well on the entrance archways as on the churches themselves. Saw the constellation of "The Plough" and the Southern Cross at the same time, at 10 P.M.

The Jesuits, as is well known, were expelled from the Spanish possessions in South America by an ordinance that was made known to them at the same hour, on the 4th of August, 1767. Their dismissal from Juli was attended with disorder and tumultuous opposition on their behalf by Indians, by whom they were much liked. Don B. G——, a resident merchant, showed me an old manuscript which had always belonged to his family, being a copy of the account forwarded to the Spanish authorities, and copied also at the time. They were sent off at 5 A.M. by the governor of Chuquito, who was ordered to superintend their expulsion; but he was obliged to erect a gallows in the plaza, and three of the principal caziques were commanded to keep the people quiet under pain of death, after two or three Indians had been hanged on it. When their return was permitted in 1816, the value of the property of which they had been relieved amounted, according to their claim, to not less than four millions of dollars.* Their wealth gave them an immense increase

* *Vide* the "Noticias segretas."

of influence and criminality in the eyes of the home Government.

I was sure that from one or other of the low mountains in the neighbourhood I could see the whole chain of the Bolivian Cordillera, and from the third that I ascended on the smae day, about a thousand feet high, on the right of the road before the approach of the town, I was rewarded by a very magnificent view of them, including the Illimanni at the southern end, rising over the lower hills about 120 miles away—an apparently continuous chain, more mural than the elevated Cordilleras of the coast, but less so than the range of the Himalaya, uniting the Illimanni and the Sorata with the peak of Huayna Potosi, in the centre of the ridge. There is no view like this in the Himalaya. An idea of a portion of it in miniature may be gained from the view of Appenzel over the Lake of Constance. The lake lay at the foot of the hill, and across its broad expanse the Convent of Copacabana, rather more than twenty miles away, was just visible to the naked eye as a speck on the bare-looking opposite coast, whilst the strait between it and the island of Titicaca was opened directly in front of me; and the lake in front of it, and the lake beyond it, were discernible up to the very base of the Sorata. In no other country probably is such an extent of inland water to be seen in conjunc-

tion with so fine a snowy range, and all canopied by the inexpressible magnificence of the southern heaven.

I was gratified to find on the side of the hill, as it shelved down more or less abruptly towards the lake, a Cyclopean wall that—so it appeared to me—could only have been made for defence against invasion coming across the lake. I am not aware that any traveller has previously mentioned it. It is extended for more than two hundred yards, but I had no time to measure it, as I was finishing a sketch; but I remember that I preferred climbing over it to going round the end of it, as it was becoming dark. The part of it remaining, as it was first constructed, is a huge wall of masses of rock, from two to three and four feet in length and solidity, varying so much in shape that I thought it doubtful whether any artificial means had been used beyond those of piling them one over the other to a height of eight to ten feet. They are much larger than any used for the division of cultivated lands. No mortar or fastening of any kind was to be seen. The interstices are such as would exactly suit a rifle regiment, and probably many an arrow has been driven through them. It is evidently a stronghold of defence against invasion, and its position, it may be concluded, was not without reference, friendly or hostile, to the Inca's palace *on the distant* island which it faces, more espe-

cially because intelligence could have been conveyed by signal fires across the lake. The Spanish name for them all is simply "La Vieja." (*Vide supra :* Hatuncolla.)

May 1, 1855.—Left Juli, and rode along the beach, traversed in some places by paved causeways amongst cultivated spaces. The green elevated slopes from it were covered with innumerable stone walls surrounding the smallest possible enclosures. They rise in plateaux tier above tier, reminding me forcibly of those in the valleys of Little Thibet. To judge by the number and size of them, the land here must have been very valuable, whilst the rigid and distinct lines of demarcation would indicate some jealousy of trespass. I nowhere saw any similar arrangement. It may be a question, as the place is now deserted, whether the Indians came there after the Jesuits had settled at Juli, or whether the latter took up their residence at Juli because they found so many natives in the neighbourhood; but it is most probable that the natives, than whom there are no better judges of climate, had known its advantages for ages previously, and more particularly on account of its being on the highway up to the western coast of the lake. I could have shot any number of wild ducks, &c., amongst the broad sedgy acres on its shallow margin, but I could rarely get them cooked, and therefore seldom fired at them. Wherever I

halted for the night—and there is little difficulty in finding a roof, though it may not be of the most inviting appearance—it was generally better to let the inmates cook something in their own fashion. This was generally chupé, a broth made with meat or fowl and potatoes (usually chuñus, or potatoes first squeezed, then frozen, afterwards dried in the sun, and which will then keep for years), or perhaps it was caldo, a soup made with potatoes only, or a chucro; when the viand assumed the appearance of a stew, with an appalling quantity and variety of red and green peppers, the addition of which it was almost useless to exclaim against. Eggs were often to be procured; and a little maccaroni, or a box of sardines, carried on the mules, made an agreeable change. The Spaniards used to say that the caña, or native spirit, which was often procurable, and made from the sugar-cane, was not so hurtful as wine made from grapes, which was to be bought in the towns.

In one place where the reeds were in tufts, and aquatic birds very numerous, I noticed a peregrine falcon, which seemed to know he had got into good quarters, and was growing fat by killing one duck a day at least, quietly sitting on one of the tufts, or lazily flying a few yards to another, seeming to care as little for the birds as they for him. At one place only I saw a large *flock of flamingoes*, showing like a rose-coloured

line on the margin of the water. Two wild ducks pretended to be maimed in order to draw off attention from their young ones towards themselves. The rolling mountains, 1,500 or 2,000 feet high, and generally verdant, rose at different distances from the lake throughout the rest of the way, presenting, however, one very remarkable feature in the scenery. I allude to the manner in which huge isolated masses of rock *in situ* crop out from their otherwise smooth and utterly treeless surface; one in particular, on a summit some seven or eight miles distant, would generally be taken for an old watch-tower; and afterwards another presented itself, which so much resembled a large ruin that I took a guide and rode several miles, and back, to look at it before proceeding the next morning, and found nothing but some columns of a coarse porphyritic grit, one of which reared itself to a height of fifty or sixty feet, as being the most prominent part of a concealed ridge. Passed a considerable stream flowing into the lake known as the Rio Grande (?). Slept at Ilare (the place of the risen river), five leagues from Juli. Two churches there worth attention. In that of Santa Barbara there were curiously-worked spiral columns, and a much-ornamented gateway built of sandstone. Plenty of cattle, sheep, pigs, and llamas. Thence five leagues to Acora, a small town at the foot of a long and gentle slope, with a large open space

between it and the lake. Chuquito was three leagues further, and similarly situated. About a league before arriving at Acora, and at three or four miles' distance, the sandstone rises over the edge and surface of the lake, whilst on the hills the formation was of limestone.

Sketched a native woman with the coffin-like black head-dress I had already noticed at La Paz and at a place called Lampa; a few days further on I sketched another wearing a brown dress with a dark red stripe, somewhat Arabian in its appearance, and a broad-brimmed hat covered with blue cloth, silver lace, and a green edging. Passed on to Puno through a great deal of cultivation; the barley nearly ripe. Called upon a family to whom I had an introduction, and heard that the Emperor Nicholas was dead.

Puno, the capital of the department, is the largest town between La Paz and Cusco, containing some eight thousand inhabitants. It has its cathedral and plaza as usual. There is nothing in any way remarkable in the place itself, but close to it is the celebrated silver-mine "del Manto," or Layacota. The Intendente sent a request that he might see my passport, which he returned with great civility. The mine is very little worked now, and the adit was filled with water, for which emergency a small punt is provided. The ore I saw was of limestone. A small and neat white hut is built over an arch

that spans the narrow entrance, and behind rises an extensive and rounded hill with verdure and no trees. Its story is interesting, and has been often told: an Indian girl saving the life of a Spaniard whom she loved; of his living under the protection of her tribe until he had found out the secret connected with the mine; then absenting himself, and returning with sufficient force to make himself master of it. The silver might have been cut out with a hammer and chisel. It is said that the Spanish Government was jealous of the enormous wealth of its owner, Salseda; that he was sentenced to death for some charge of high treason; that he offered to give a bar of silver for every day that elapsed during the return of a decision upon an appeal to Spain, and that the mine was flooded on the day of his execution.

A mole has been constructed at the end of the causeway which leads down to the lake, and some reed balsas were lying near it. The temperature of the water at noon, May 5th, was 57° Fahr., and in the sun it stood at 79°. In the front is the hill-island of "Esteve," used as a prison by the Spaniards; and a few miles off is the large elevated island of Raguina, and another named Pterita, both apparently verdant, but bare of trees; the opposite coast of the lake is faintly visible between them far away over the watery horizon. *I did* not hear any accounts of

them sufficient to induce me to undergo the annoyance of a tedious voyage of several miles in a bolsa, but should think a visit to all the islands and shores in this magnificent inland sea—whose depths and shallows are but little known—in a comfortable steamer would almost deserve to be called a voyage of discovery in science. The causes of its slightly saline taste might be ascertained, and one might even hope some day to fish up some treasures. The great chain of pure gold which belonged to the Incas, and was reported by some to have been thrown into the Lake of Titierca to avoid the rapacity of the Spaniards, was, according to Ulloa, thrown into a lake in the valley of Orcos, six leagues south of Cusco. A story is told of the existence of treasure once belonging to the Incas on the banks of the Ucayale: of an Indian having brought gold constantly from some place unknown to the others, and of his footsteps having been traced for a certain distance but ineffectually. It is said that there is still among the neighbouring Indians a traditionary knowledge of the whereabouts of the chain, and which, if true, is but consistent with the belief they entertain of the reappearance of the Inca; and there are numerous stories told of Indians who, being possessed of money without any ostensible means of acquiring it, are believed to have found a vein *of silver ore*. Some of the best mines were

eventually discovered in this way. There is no doubt about their having some means of conveying intelligence by sign-making from the summit of one hill to another. Any one who has resided in the country will bear witness to the extraordinary manner in which any event of public interest, or affecting them in any way, has been known in distant places without being in the least able to account for it by any other means.

The Aymara language is spoken from La Paz to Puno; between Puno and Cusco the Indians speak Quichua; at Sorata, on the east side of the lake, they also speak Aymara.

At and before arriving at Puno, the limestone and sandstone are raised up in such a remarkable way that it is difficult to say which is the undermost, the sandstone sometimes gradually changing into a breccia. Volcanic action is apparent in the lava-like rocks that are strewn about the vicinity; and the plain northward from Puno is covered with volcanic masses, one of which, in particular, resembles a meteoric stone.

But I was anxious to reach the ruins of Pauquacolla, or Hatuncolla, as they are more usually termed, and proceeded along what Humboldt calls "this remarkable plain, situated between the cities of Cusco and La Paz (lat. 17° 10′ S.). The plains of Tiahuanaca, which,

long before the arrival of Manco Copac, were the centre of the first civilization of mankind, which covered with the ruins of an august grandeur the banks of the Chucinto (Titicaca)—a basin which resembles a small inland sea—are the Himalaya and Thibet of South America; and from which remarkable plain descended numerous and powerful tribes, who carried their arms, language, and arts even to the Northern Hemisphere."*

The track now diverged from the banks of the lake, which gradually trends away to the north-east, and was covered with square miles of reeds, rushes, &c., and swarming, no doubt, with wild fowl. The name of Pauquacolla occurs here, but I forget to what place it is applied. The summit of the Sorata, which had been reflected like a white streak on the still water, and had been brightly tinged with rose-colour at sunset, had now nearly disappeared below the horizon of the lake, and I saw it for the last time at Hatuncolla. I was hospitably received by the curé, whose name I am sorry to have forgotten, and to whom I had an introduction. Here I found a copy of "El Comercio" of Lima, containing a proclamation of Santa Cruz, the ex-president of Bolivia, and an account of the death of the Czar. Its date was April 9th, so

* "New Spain," vol. ii. pp. 347-8.

that it had been about a month in arriving, probably *viâ* Arequipa.

I rode with my servant to the ruins the next morning, some five or six miles distant, the good curé having requested to be excused. I arrived at the bank of a very large and deep-looking lake, having no communication with that of Titicaca, and, after making our horses secure, proceeded along a short ridge or neck of land some 500 yards wide, which connected the rocky and peninsular hill with the shore on the south of it. The peninsula itself was about half a mile in length, lying north and south, and about half as much in width, covered with ruins and loose rocks, some of them from six to ten feet thick. Round the upper edge of this hill—I am inclined to think for defence, as one object at least—are the ruins of twenty-five towers in a different state of preservation, some of those at the south end being most perfect and disposed in a half-circle, covering a space of about two acres, and enclosed with a Cyclopean wall of loose stones. They are unlike any other ancient buildings in America that I am acquainted with, unless the towers on Rio Gila should resemble them. The three principal towers, each about thirty feet high and twenty in diameter, are beautifully put together, the stone two to three feet thick, fitted by means of sockets and *nodules*, being probably smoothed

on the outside after they were built. They are round, the upper tiers larger than the base, and the sides slightly hollowed out, rendering the ascent to the top more difficult; so that in the distance they have the shape of long, narrow pails or buckets. Some of the divisions in the sides had been opened by means of gunpowder or an earthquake. There seems to have been a similar tower rising on and from the upper tier; but all above is in ruins, and I was only able to guess at the construction of the top. Those that were broken down were filled with small loose fragments of rock, seemingly thrown there with some design. Besides these towers, there are small square raised stone platforms and several circles of stones put together, giving the idea of having been used as the coverings for tanks, or perhaps granaries, there being, I believe, no water on the hill. Nothing could exceed the simple finish of the workmanship. The highest part rises to about 250 feet above the lake on the south-west end, and on the north-west are two small circular paved spaces, walled in with low flat slabs of marble, most likely used as a reception-hall or court of justice,—perhaps for religious ceremonies, or an arena for athletic exercises or mortal combats, &c. The water of the lake did not seem particularly clear, at all events *near the shore*. Half a mile of it intervened

between the north end of the hill and the mainland, and there is a hill-island of about a mile in length and distant about a mile and a half. There were two dark specks on its edge which I could not make out even with a telescope; the lake itself seeming to be generally extended from the peninsula for two and three and five miles in different directions. The country on the opposite shore, and in fact all around, was divided into open and extensive spaces, intersected with numerous ranges of low mountains with no great quantity of verdure, and over which to the westward one snowy peak was visible. On one of the plains, a little to the south of the same direction, a mere collection of dark dots was pointed out to me as the village of Bilque, on the highway from Puno to Arequipa, and the port of Islay on the coast. A celebrated fair is held there, and a vast number of cattle, horses, mules, &c., are bought and sold.

The best burden-mules are said to be bred in and about Tucuman; those from Arequipa and the coast generally are considered to be the best for the saddle.

I found the curé "well up" in the story of the ruins I had visited. *Hatun*, in Quichua, signifies a prince or grandee; *colla* I understood to be a titular appellation given to all the incas or kings. The actual name of the ruins is Silos-

tani, signifying "the residence of the king" only. The towers, he said, were sepulchres; each he believed contained the remains of a chief. I cannot help thinking they were constructed also on the ridge with a view to purposes of defence. If merely tombs, they might have had a figure on the summit, like the supporting part of the idols in the island of Zapatero, in the Lake of Nicaragua, one of which has something of the shape of the Hutuncolla towers.* They were ruins in the first times of the Spaniards, who found no one but common Indians there. No doubt all of them had been ransacked for gold. The curé said they were the tombs of a dynasty that existed before that of the Incas, founded by Manco Copac, who, he added, was only a private gentleman of great possessions near or at Tiaguernaco, where he ordered the palace to be built. His grandson Huasca conquered the kingdom of Hatuncolla, which was in a disordered state, but which was of vast extent, reaching to Chili on the south and La Raya on the north, and the curé referred me to Garcilasso de la Vega for the account he had given me. "But," says Robertson (vol. iii. p. 328), "all his zeal for the honour of that race of monarchs from whom he descended, all the industry of his researches, and the superior advantages with which he carried

* *Squiers'* "Nicaragua," p. 478; see ante.

them on, opened no source of information known to the Spanish authors who wrote before him."

Humboldt remarks:* "The general question of the first origin of the inhabitants of the continent is beyond the limits prescribed to history, and is not perhaps even a philosophical question." Conjecture, however, will still be indulged in so long as there is uncertainty, scientifically speaking, on the origin of the human race itself. The discoveries of the future are necessarily more and more to be trusted as the best source of enlightenment with reference to the past. When the origin of races is under consideration, the antiquities on a mere isolated speck on the ocean, like Easter Island or Tahiti, compel us to study the testimony of the rocks, and investigate by its aid the footsteps of incessant change. The existence of one ancient edifice in such a locality is as replete with interest as the ruined cities of a continent.

We may, I think, reasonably suppose the mode of life peculiar to the Esquimaux to have resulted from long ancestral residence on some coast isolated by geological change or by the accumulation of ice, from which they found it impossible to escape, and that habits and occupations, at first adopted from necessity, eventually be-

* "*New Spain*," *vol. i. p.* 100,—New York edition.

came matters of preference after an exodus had become practicable to their descendants. Advocates of the local creation of man would, I presume, hardly think it probable that the Esquimaux were called into existence within the Arctic circle, unless they came already clothed, or the climate was much warmer than at present. There is plenty of reasonable evidence that their progenitors were wanderers from the Asiatic coast.* It is but fifty miles across the ice of Behring's Straits. They may have arrived from a more temperate European country by way of Greenland. It is not, at all events, probable that they have ascended from the south to the northern shores of America. Their present isolation from other tribes of Indians, whom they have so long had the means of mixing with, might alone be considered as evidence that they were the last comers. Although so thoroughly acclimated, they were deterred, even after long residence, from seeking a more genial climate to the southward by the fear of tribes whose hostility was and is "open and notorious," combined with that of wild beasts and imaginary dangers. The best geologists are of opinion that whilst the St. Lawrence was draining the plains of the north, the Mississippi has performed the same labour allotted to it in the opposite

* *Vide* "Prehistoric Man," by Professor Daniel Wilson, *LL.D., of Toronto*, vol. ii. p. 448.

direction for upwards of 60,000 years. We cannot forget that the country has been comparatively flat and unchanged, and probably, therefore, habitable for a large proportion of that time.

The languages of the New continent have been reckoned to be 1,200, whilst the number of those of the Old world are comparatively countless. Nations who have fought, dispossessed others, settled, and migrated again when conquered themselves, or driven away by pestilence, may have passed north and south, or from south to north, through the Isthmus of Panama, like the sand in the hour-glass.

Humboldt thinks that "the Toltecs or Asteks might be a part of those Hiougnoux, who, according to Chinese historians, emigrated under their leader, Punon, and were lost in the northern parts of Siberia."* This nation of warrior shepherds, he adds, "has more than once changed the face of Oriental Asia, and desolated, under the name of Huns, the finest parts of civilized Europe." He says also that hieroglyphical paintings found on the north-west coast, more especially in latitude 57°, are corroborative of the theory of Western emigration.† Their more immediate descendants may have raised the sepulchral

* I may remark here that the Mexican word *tepec*, and the Himalayan *teeba*, signify "a hill." The plant sumach I have heard has the same name in Asia and America.

† "New Spain."

earth-mounds in Pennsylvania, Ohio, Virginia, and other places, one of which, opened by Mr. Jefferson, contained about a thousand skeletons of small stature, appearances indicating that it derived its origin and its enlargement from a custom of collecting the bones of the dead on the spot, at different times, and also that they were those of a different nation from the Esquimaux, whose skulls are dolichocephalic, those of the mound-builders being brachicephalic.

The learning and research exhibited by the author of "Prehistoric Man" has given us the best account of the sepulchral, sacrificial, and symbolical mounds, hill-forts, river terraces, enclosures, &c., in the Mississippi valley, and how, as articles of value, the large brilliant shells of the coasts of Central America and the obsidian of Mexico found their way over the continent, even to Canada, and were bartered in exchange for the native pure hewn-out copper on the shores of Lake Superior. He also notices the inscriptions in different parts of the continent, and those connected with the old Greenland Norsemen, the reputed discoverers of Finland, the explorers of Rhode Island and Massachusetts.

Even supposing the first Americans to be autochthones, there is nothing surprising in their adoration of the sun (in the same spirit that water in India is termed Behishta, or "*the Blessed*"); that the instincts of superstí-

tion should suggest the worship of idols, to be followed by human sacrifices and fire altars; that a tribe should trace and carve on the plain the figure of the animal whose name it bore; that ditches should be cut and embankments formed around defensible positions; that mounds should be succeeded by pyramids, and the pyramids themselves be used as sacrificial altars. It is probable that those of Egypt were not constructed until experience had shown the unsatisfactory results of memorial mounds formed on the driving sands of the desert and the surface of a country overflown by the Nile. It ought not to surprise us that eventually a higher style of architecture was attained; that they should unwittingly adopt Egyptian and Etruscan shapes in their doorways and windows; should find out an alloy for their cutting-instruments; should form Maltese and other crosses, by way of ornament; should mark the rocks with hieroglyphics, and imitate in sculpture the human figure; should designate his occupation, and add artistical arrangement to his dress of skins and feathers.

And there is nothing extraordinary that the priests and leaders of a pastoral people, accustomed to regulate their seasons of rejoicing and their superstitious rites by the breeding of wild animals, the nesting of birds, the ripening of their harvest and wild fruits, should in time,

aided possibly by some native genius, find out the necessity of intercalation of time, so as to make the day named agree with the observed shadows at the solstices and equinoxes. But, as Dr. Wilson has remarked, "it may be noted as a general characteristic of all the ruined cities of Central America, that they betray everywhere evidences of a barbaric pomp, where utility and convenience are alike sacrificed to architectural magnificence. . . . Huge pyramids and terraces are reared as platforms for ponderous structures of massive grandeur, but only of a single story in height, and presenting in the interior a narrow and imperfectly lighted vault, roofed in by the converging walls, which supplied to the unskilled builders the poor substitute for the arch. . . . . Such architectural display is the work of despotic power controlled by the predominating influence of a priesthood under whom pomp and oppressive magnificence take the place of the real power of the throne, and the people are subjected to a despotism the more dread because of its subtle direction of national festivities no less than of fasts and festivals."*

Here, then, were people who did not know of the arch, but who had an almost exact knowledge of the duration of the year, and who intercalated at the end of their great cycle of

* "*Prehistoric* Man," vol. ii. p. 63.

104 years* with more accuracy than the Greeks, Romans, or Egyptians.

"We are tempted to believe that this progress is not the effect of intellectual development of the Americans themselves, but that they were indebted for it to their communication with some very cultivated nations of Central Asia."†

Laplace found that the duration of the tropical year is almost identical with that of the astronomers of the Caliph Almamon, A.D. 813.

It appears to me, without being an astronomer, that there is something strikingly anomalous in this proof of advancement so far ahead of other knowledge; so much so, that we can only consider it either as the result of residence for ages in combination with forms of worship which demanded a peculiar observation of the heavenly bodies, or that a maritime people existed in America, or that the system was brought to the country by the Carthaginians, who would have learned it from the Chaldees, the commencement of whose empire is fixed at 2234 B.C.‡ The religion of Tyre is known to

* The Asteks had months of 13 days, of which 1461 made their cycle of 52 years, by which a supernumerary quarter-day was accurately adjusted. Herodotus considers the intercalation of the Egyptians better than that of the Greeks.—Rawlinson's "Herodotus," vol. ii. p. 286.

† Humboldt, "New Spain," vol. i. p. 101.

‡ Rawlinson's "*Herodotus*," vol. i. p. 34.

have been that of the sun, moon, and stars; and it is more probable that a maritime nation would cultivate a science which was of use to them, than the Egyptians, Greeks, or Romans. Herodotus says the Tyrians were the first who observed the course of the stars in their sea voyages. I need not remark on the antiquity of Tyre.* Her sailors must have been renowned from the beginning, and with them and the Sidonians, astronomy probably remained separated from the astrology of the Chaldees. Pliny speaks of "that great Tyrus, lying within the deep sea, from which sprang that great Carthage that so long strove with Rome for the dominion of the world."† and adds that "as for trade and merchandise, the Carthaginians had the first honour thereof." Dr. Arnold says: "It is not to be forgotten that no poet, orator, historian, or philosopher has escaped the wreck of time to show us how men thought and felt at Carthage. That there were Carthaginian writers we know."‡

In the "Periplus" we read that Hanno sailed with sixty ships of fifty oars each, and 30,000 men and women; which would give 500 persons in each. This was for a coasting and colonizing

* *Vide* the dissertation in Stillingfleet's "Origines Sacræ."

† *Ibid.* book v. chap. xiv.

‡ "*History of* Rome," vol. ii. p. 555.

voyage, and they would not care for the heat; but we may infer that the ships were large enough for ocean-sailing, being intended for that purpose.* After a voyage of twenty-nine days, he tacked about for want of provisions; and, allowing for his return, he probably had enough on board (and water also, perhaps laid in as ballast) for six or seven weeks.

The gorilla is to the voyage of Hanno what the peacock is to those of Solomon's ships: both indicate arrival at particular localities.

Pliny says also that the Canaries were discovered by the Carthaginians; and Hipparchus (127 B.C.) commences his longitude from them. Supposing then that a large and well-appointed Carthaginian ship, after passing the Straits of Gibraltar, were driven by a gale for some 300 miles off the coast to the westward, perhaps from one of the Azores, after having taken in a fresh supply of provisions, dried fruits, water, &c., she would then be within the limits of the North-east Trade wind; and supposing it to continue to blow steadily and strongly, with fine weather, she would soon be within the influence of the current setting to the westward; and it is not unreasonable to conjecture that she would (having also the use of her oars) be driven on one of the more southerly of the Caribbee

* Polybius says that the *quinquiremes* had each a crew of 420 men, and speaks of one with seven banks of rowers.

Islands—say Martinique or Barbadoes—in perhaps five or six weeks.

The distance of the route, sailing from Gibraltar to Barbadoes is, so I am informed, 3,210 miles; a deserted ship would drift there at the rate of ten miles a day. But if it be true, as mentioned by Rollin,* that Cato threw down some fine figs in the Senate at Rome, and stated that they had been gathered only three days previously at Carthage, it gives a rate of sailing of 120 miles a day, it being about 360 miles in a direct line from Carthage to Civita Vecchia; and the passage of the Atlantic, even at the same slow rate, would only occupy about twenty-seven days or a month. Columbus reached San Salvador in thirty-six days from the Canaries.† But it has been objected by authority that even supposing the Liby-Phœnicians to have voyaged to America, they were not a building race, being of Semitic ancestry. There is not much remaining of Tyre excepting the columns and submerged masonry of the old harbour. It seems difficult to believe that important and maritime cities like Sidon, Tyre, and Carthage should be destitute of architectural display in baths and public buildings, to say nothing of the residences of their rich merchants. Their

* Pliny, lxv. c. 18. Rollin has allowed no reference to escape him in his "History of the Carthaginians."

† *September 6th* to October 13th, 1492.

ships for so long a period were masters of the Mediterranean, the Carthaginians must have wandered, some of them perhaps even to Persepolis; must have known of the Pyramids, of Pæstum, of Athens, and the Doric temples in Sicily, and most probably of the earlier buildings of Rome. Mr. Fergusson remarks, "We have now more remains of kingly than of consular Rome."*

The Carthaginians, it is true, were placed at a great distance from the earlier centres of civilization, but their wealth and commercial intercourse would have procured them artisans from Greece, Sicily, Egypt, Tyre, or probably Rome; and it may fairly be asked whether their antecedents as a Semitic race would have been capable of neutralizing a wish to imitate or excel. Carthage (an ancient city), beloved of Juno, who kept her arms and her chariot there; and her shrines were adorned with signa taken from the Romans, whose temples and palaces were decorated, says Dr. Arnold, on the authority of Livy and Polybius, with the costly furniture which Hannibal had collected in Italy. Supposing some of the mosaic pavement in the British Museum to have been amongst it, yet the portraiture of the two African riet-bocks† in the act of drinking, known by the tail and

* "Handbook of Architecture," p. 297.

† Eleotragus *reduncus*, usually found in marshy places.

forward curvature of the horns, would most probably be worked in Africa, though perhaps by artificers from Rome.

There was, again, an aristocracy of wealth and family at Carthage: the heroines in the "Pœnulus" of Plautus were of noble birth ("ingenuas ambas"), and one of them is taunted with being fond of a negro. They had their two suffetes or supreme magistrates, their senate, and their tribunal of one hundred and four, supposed by Niebuhr to have reference to the solar year, two for each of the fifty-two weeks; and Aristotle, quoted by Rollin, ranks this republic in the number of those which were held in the greatest esteem by the ancients, and which were fit to serve as a model to others; adding, that for 500 years no considerable sedition had disturbed the peace nor any tyrant oppressed the liberty of that state.

The senate was aristocratic. Polybius says, that during the wars of the Romans, the Carthaginian constitution became very democratic, and he ascribes the victory of the Romans, in some measure, to the superior wisdom of their aristocratic government, and the instability of popular councils at Carthage.*

"About six miles from Tunis," says Lady Wortley Montague, "we saw the remains of

* *Arnold's* "History of Rome," vol. vi. p. 51.

that noble aqueduct that carried the water to Carthage over several high mountains, the length of forty miles. There are still many arches entire. We spent two hours viewing them with great attention, and Mr. W—— assured me that of Rome was much inferior. The stones are of a prodigious size, and yet all polished, and so exactly fitted to each other, very little cement has been made use of to join them. I was, however, half broiled in the sun, and overjoyed to be led into one of the subterranean apartments, which they called 'the stables of the elephants,' but which I cannot believe were ever designed for that purpose. I found in them broken pieces of white marble and some porphyry."

It is, again, asserted that the aqueduct was Roman; the so-called "stables" were either tanks or granaries; but both must, at all events, have been needed by Old Carthage, and might have been constructed by Roman workmen. According to Strabo, the dock roofs in the harbour for the ships of war at Carthage were each supported by two marble columns of the Ionic order; and it may be surmised that a superstitious people who, as mentioned by Polybius, concluded a treaty with Philip, son of Demetrius, king of Macedon, in the presence of Jupiter, Juno, Apollo, Hercules, and all the heathen gods, would have made temples for their worship; as also to

Urania, or the Moon, and Moloch, whom they worshipped under the name of Saturn, and to whom they immolated human victims—a custom (as in Mexico) no doubt hardly compatible with refinement or taste for architecture. Altogether it seems that the Carthaginians sacrificed display to usefulness; that, as a practical and commercial people, they had amassed great wealth and treasures of elegance from different countries, but that their public buildings had little of the grandeur of those of the Romans, whilst the private dwellings and country houses of the rich were rendered as magnificent and luxurious as possible. Strabo says the city was rebuilt by Julius Cæsar, and that in his time—that of Tiberius—it was as great if not superior to any city in Africa; and Gibbon,* so late as A.D. 237, speaks of the peaceful luxury of Carthage. Plautus describes the Carthaginian as knowing all languages, but pretending that he does not; and his countrymen are said to be remarkably jealous of their discoveries being known. Acosta says: "Also other grave authors do write that a ship of Carthage, driven by force of wind into the ocean, came to a land which until then was unknown, and returning to Carthage kindled a great desire in the citizens to discover and people this and, the which the senate perceiving, did forbid this navigation by rigorous decree, fearing that

* "Decline and Fall," vol. i. p. 303.

with the desire of new lands, they would cease to love their own country."*

We may then, I think, fairly conclude that the descendants of the Carthaginians would have been capable of building the pyramidal structures of Mexico and Central America, and that a voyage to one of the islands mentioned would not be an impossibility. The first crew might or might not have returned, and others may or may not have followed them. It might have been composed of men of different nations on the Mediterranean; there might have been Syrians, Egyptians, Greeks, and Jews, who would not forget their customs, on board, and priests and the officers, would probably know all that was known of astronomy at Carthage. There might have been women also on board; but a colony would have been commenced by intercourse with the natives.

As descendants of a maritime people, they would in time make their way from one island to another in a southerly direction; they would cross to the plains of the Oronoko, where a nation of Caribs (the first syllable of the name is noticeable) are now living, and eventually follow up the Magdalena, and become the agriculturists of the cool and elevated plain of Bozota. To the

* "History of the Indians," by Acosta, lib. i. cap. 2.—London, 1604. Another (Colonel Joachim) Acosta wrote a "History of New Granada."—Paris.

northward it is not unreasonable to suppose that they would arrive at Cuba and cross to Yucatan. Columbus met a large canoe forty leagues from Yucatan, whence it had sailed. Bochart thinks that Hanno, in the "Pœnulus," designates himself as an inhabitant of the city of Anak. Names in Central America frequently terminate in *ak* or *ek;* they may be taken for what they may be thought worth. Humboldt speaks of the great nation of Tamaneks, also resident near the Oronoko: we notice Totonak, Tlapanak, Tapanak, Otomak (Potomac in North America), the valley of Anahuac or Mexico (?) Olmec, Mistek, Zapotek, Toltec, Astek, &c. But Colonel Vallency* proves that the language of the lower Irish is the *Bearla Fenè*, or Phœnician—a dialect, according to Herodotus, of the Hebrews; that the word *Chadreanech* in the "Pœnulus" is in Irish *Chathar dreannad*, "the good city," the second word being the adjective; that *Ana* in Irish (Phœnician) means "plenty of riches"—a cornucopia. Uxmal might thus be *Anahuac shmala* (?). I am told that the Hebrew word *Simlah*, in Chaldee *Semala*, is *Shmala* in the Arabic of Morocco, and signifies literally a cloak or loose garment; but the camp equipage or travelling wealth of Abdul Kader was termed his "schmala." Hanno, again,

* "Essay on the Antiquity of the Irish Language."—*Dublin*, 1772.

in the "Pœnulus" calls upon "Baal." Could Palenue be Baal Inca—thus answering exactly to Baalbek? It is worthy of remark that these forty-four cities, probably of one nation, are generally out of the line of the highway from north to south, and exactly in the way from Cuba or a coasting voyage or emigration from the south. The ornaments on the ruins at Uxmal, which are nearest to the coast opposite Cuba, bear little resemblance to those of Copan or Palenue, excepting that there are pyramids at each of them, those of Copan being most like those of Egypt. Stevens says there are no carved tablets, as at Palenue—no idols, as at Copan. Pliny says no idol of Baal was ever found at Carthage. At Uxmal there are no idols. Some of them at Copan resemble those on the island of Zapatero, in the Lake of Nicaragua; others are sitting cross-legged, after the Oriental fashion, as are others also at Xachicalco, near Guernavaca; and at Mitla, in Oaxaca (one of the most delightful countries on the face of the globe), Humboldt says that the walls are decorated with "Grecques" and labyrinths in mosaic, and speaks of designs such as we admire in the vases falsely called Tuscan;* of a hall supported by columns of porphyry; of the great analogy between the ornaments there and those

* "New Spain," vol. ii. p. 153.

employed by the Greeks and Romans; and also of the resemblance which the distribution of the interior of this singular edifice bears to what has been remarked of the monuments of Upper Egypt. Squiers, in his "Nicaragua," gives the figure of a frog in a stone resembling verde antique, and looking very Egyptian in workmanship.

The wooden beams in the ruins at Uxmal would indicate a later occupation, remaining perfect, although exposed. On the Altar Casa at Palenue is a mask resembling that in the centre of the Mexican sundial for the day of sixteen hours (as Humboldt thinks it to have been), with the tongue hanging out, probably representing the sun as Time, and therefore constantly out of breath. This tends to connect the ruins with the Toltecs. Montezuma wore a magnificent emerald, which found its way from New Granada rather than from Siberia. Supposing the colonists to have gradually commenced migration northward, it is not extraordinary that they should prefer the eastern coast, avoiding the comparatively desert plains of the west, and the swarming scorpions of Durango; nor less so that in their halts, after building the Teocallis of Papantla, north of Vera Cruz, and the edifices now in ruins in the Prasidio of Yanos in New Biscay, they would thus have reached, and finally settled, *after having* followed up the banks of the Rio

San Pedro, on the site of the Casas Grandes, on the south site of the Rio Gila, and turned their steps southward again when hostile natives or other circumstances compelled them to do so.*

Speaking of the Casas Grandes, Humboldt says: "We also find amongst these fragments of Mexican stoneware pieces of obsidian (itztli), a very curious phenomenon, because it proves that the Asteks passed through some unknown country which contains the volcanic substance, and that it was not the abundance of obsidian in New Spain that suggested the idea of razors and arms of that substance."

With the greatest deference often evinced for such an authority, I cannot but think that so far from having brought obsidian from the north, the finding it would rather prove that the colonists from the south, perhaps after building the two pyramids of Tiotihuacan, near Tescuco, had procured their cutting instruments from the obsidian mines in the Real del Monte mountains. Wherever they went they would have preserved their Liby-Phœnician and other traditions, to be, of course, in time blended with the superstitions

* In the Government Report of the practicability of a route across the continent in the thirty-second parallel, *viâ* Texas, New Mexico, El Paso, and the Gila, to the Pacific, it is said that the drawbacks to it were that, after leaving Arkansas, it is a continuous desert to the Pacific, without timber and without water, *except at* an oasis here and there.

of the aborigines, whilst their leaders or priests would not have permitted the system of intercalation—so necessary to their own importance—to be lost by neglect. In common with the Phœnicians, the Mexicans had their "*cultores*" of fire and the sun; like the Carthaginians, they had their human sacrifices; and at the same time, as in Mexico, a great display of wealth and luxury. The colonists and their descendants must have seen or heard of the Pyramids of Egypt, and the Byrsa of Carthage would naturally be copied in the Teocallis, to be used for the same purposes.*

Dr. Wilson† points out the discrepancy of the dates assigned by different authors to the advent of the Toltecs: some place it A.D. 387, Humboldt and others in A.D. 648, and that of the Asteks or Mexicans from the mythic northern Aztalan in A.D. 1196. It is observable that the first light of traditional American history may be said to dawn upon us about the same

* The resemblance of the name Byrsa (a hide) to those of Borsippe or Birs Nimroud, and the Arab Boursa near Babylon, is singular. Colonel Vallency, however, says, that "cathair" is Irish for a city, and "go" signifies the sea; and that the ancient name of Byrsa, as applied to the citadel of Carthage, was "Borrsa-ra" or "rath," signifying a royal fort.

† "Prehistoric Man," vol. i. p. 408. Mr. Gallatin has compiled a laborious digest of the successive migrations and dynasties of Mexico, as chronicled from older sources by De Alva or Ixtlilxochitl, Sahagun, Veigtia, Clavigero, the *Mendoza collection*, the Codex Tellurianus, and Acosta.

time that the Dark Ages (from the seventh to the eleventh century) commenced in Europe. About a thousand years may be said to have elapsed between the advent of the Toltecs and that of the Spaniards. If we suppose that the Tyrians discovered, colonized, and introduced their system of intercalation into America, we are reminded that they must have done so before their city was destroyed by Alexander, B.C. 332. If, again, we would assign the honour of the discovery to the Liby-Phœnicians (and no positive contradiction can be given to such theory), we cannot forget that it would not be probable after the first Punic war commenced, 264 B.C., as their fleets were otherwise occupied or destroyed. The real dates of discovery may have been earlier. Supposing that a communication had been kept up in the spring months, the colonists would still retain their system of intercalation, although they could no longer learn any new arts from the mother city, and the withdrawal of its protection may have been amongst the causes of decay and migration, &c. In the reliefs figured in Stevens's "Central America," the Asteks, I may here remark, are represented as a dominant race over men with totally different features. From the first Punic war to A.D. 387 we have 651 years; from the development of the Carthaginian colony in the countries bordering on Mexico and Central America to the advent

of the Spaniards in 1519 * we have 1,783 years; and within the limits of this time we have, therefore, a right to conjecture much may be learned, much forgotten. Customs would be changed or lost; colonies would become nations, who have built cities and been exterminated; cities may have been ruined. The earthquake, the volcano, the tornado, famine, pestilence, war, beasts of prey, and rattlesnakes, have done their work under these meridians. The evidence of sight amongst the ruins of Yucatan and Hatuncolla almost compels a belief in sudden desertion; and, altogether, the improbability of a lengthened state of repose necessary to have formed the Mexican system of intercalation seems only to be thrown into very strong relief. There are, generally speaking, some seven or eight nations who are remarkable,—the mound-builders, the idol-makers, the Toltecs and Asteks, the Muyscas of Bogota, the inhabitants of Yucatan, the great nation governed from Hatuncolla, and the dynasty founded by Mango Capoc. The walls of the Saxahuaman at Cusco are peculiar, being built with salient and re-entering angles; and there is the figure of a mermaid on the wall of a palace resembling those on the Carthaginian mosaics in the British Museum. The towers of Hatuncolla are unlike

* *Cortez entered the* city of Mexico November 8, 1519.

any ruins I know of in America; but a similarity may be noticed in buildings very distant from each other, and attention to close adjustment of material is remarkable in all, probably for the reason I have ventured to assign. Religious differences were only varied phases of sun-worship; the fine arts would not flourish where faith and imagination were so little needed; and no one could accuse his neighbour of being an infidel. The sides of a chamber on one of Lord Kingsborough's Mexican teocallis remind me of the large upright slabs at Ollientay Tambo; the pyramidal buildings at Yucatan and the temple of Parbacamae are alike in general structure; a clear space similar to the stone-edged, Druidical-like quadrangle at Tiaguernaco is walled in by the mighty Astek cedars of the Tescucan grove; and in the Altar Casa at Palenue is a mask,* with the tongue out, as if out of breath, like that on the calendar-stone at Mexico, and, so I venture to suggest, representing the sun as Time, but receiving offerings of household gods or real victims in one of the festivals described by Prescott—a conclusion which, if well founded, would go far to connect the Toltecs with the buildings in Yucatan.

The position of Cusco must always have been one of importance, and may have often changed masters long before the advent of Mango Capoc.

* *Vide frontispiece to* Stevens's "Central America," vol. i.

That of Hatuncolla is precisely one which would be chosen by a freebooter—a stronghold whence he could levy blackmail on any traveller either from north and south, or east and west,—from Titicaca to the coast; and probably, therefore, the dynasty was commenced in that manner. There is something very remarkable in the ruins there, which, with those unfinished at Ollientay Tambo, on the north, and of Tiaguernaco on the south, of Cusco, as if it were then under the government of Hatuncolla, are evidently of the same age, of the same style of workmanship, and even of the same coloured stone, having little or no ornament, but the same wonderful attention to adjustment. It would seem that the capital was destroyed by the Inca Huasco, and that the two other buildings were left unfinished. The power of Hatuncolla extended most likely to Chili, and perhaps to the coast for a certain distance northward. I am not aware of any ruins south of Tiaguernaco. It is worthy of note, says Dr. Wilson, that whilst we find through the continent from the Rocky Mountains to the Atlantic scarcely a vestige of ante-Columbian stone architecture, traces of it increase upon us with every new exploration of the country that lies between the Rocky Mountains and the Pacific, and merges, towards the south, to the seats of ancient native civilization and matured architectural skill.*

* "Prehistoric Man," vol. i. p. 435.

Mr. Rankey thinks that vessels having elephants on board arrived in South America after having been driven off the coast of Japan. The distance from Hong Kong to San Francisco is 6,540 miles: in drifting, therefore, at ten miles daily, a ship would occupy 654 days. North-east winds, I am informed, blow on the coasts of China and Japan in winter, and south-west winds in summer. A north-east wind would not drift a vessel from the China coasts, but either ashore or down that coast into the China Sea. A south-west wind, supposing the vessel to be some distance off the coast, would, aided by the Japan stream, which sets to the north-east along the Japan coast, drift a vessel to the north-east beyond the parallel of 40° N. into the region of westerly winds, which winds, aided by the same current which takes their course, would place the ship ashore, perhaps somewhere between San Francisco and Vancouver's Island.

Figures, with the most marked Chinese, Japanese, or Tartar features, are portrayed in one of the plates in Lord Kingsborough's work. The pyramidal buildings at Tahiti, the pinnacled images at Pitcairn's Island, skulls found there nearly as thick as those of negroes, and the antiquities of Easter Island, consisting of stone figures on platforms, morticed and tenoned, says Captain Cook,* into one another in a very artful manner,

* *Second* Voyage, vol. i.

sitting like the Indians buried in the desert of Atacama, almost compel us to believe in the extensive submergence of land in Polynesia. Roggersein, the oldest voyager to Easter Island, found it covered with forest, and saw proofs of recent immigration. Captain Cook, who fifty years afterwards (1774), saw but one side of it, says: "There are few places which afford less convenience for shipping. It is ten leagues round, with an iron-bound shore, and a hilly and stony surface, with neither wood nor water." Captain Beechey found only four remaining images, valleys well cultivated, and groves of banana-trees, &c. There are evidences of a former nation having passed away, and of these islands having been gradually repeopled from those to the westward of them.* "Easter Island is studded with volcanoes, and an eruption may have driven the inhabitants into the sea, or so torn up the soil and vegetation that they could not exist upon it." Easter Island is 2,000 miles from the coast of Chili, and 1,500 from the nearest inhabited island. May its once apparently more flourishing condition be considered to have arisen from its being the easternmost island of the Polynesian group, or because it is the nearest to the coast of America? Captain Cook says that in speaking of the images the natives used the prefix

* "*Beechey's* Voyages," vol. i. p. 42.

"Areekee," by which, of course, his readers would be reminded that Arica, if not on the directly opposite coast, was the port from which commenced a path into the interior, to the Hatuncolla territory, the country of Mango Capoc, and the western bank of Titicaca. In the second expedition for the discovery of Peru, "a large native balsa, formed of huge timbers of light porous wood, with men and women, and ornaments of gold, &c., was met with in the open ocean."* Another like it, and unsinkable, may have been driven off the coast to Easter Island, and a communication may have been afterwards kept up, and some of the islanders may have settled on the continent. But whilst it is most probable that the platforms on the island were those of its chiefs, possibly occupiers and conquerors from Arica, I at least am aware of no existing signs of a colony from the Pacific; and the ruins in Peru present far too many points of resemblance to each other to leave any doubt on my mind that whatever may have taken place in prehistoric ages, their builders came from the north more likely than from the south, there being, so I believe, no remains, as already mentioned, south of Tiaguernaco, and the country whence Mango Capoc is said to have emigrated as a conqueror.

* "*Prehistoric* Man," vol. i. p. 177.

FROM HATUNCOLLA TO LIMA.

Marched from Hatuncolla to Lampa, eleven leagues, over one long plain covered with tufted grass, feeding sheep and llamas, watered by the river Yucara, and bounded by mountains of different elevation, shutting out all further view of the lake. In a nook on the right hand is Lampa, conspicuous by its steeples and bridge. Ducks, partridges, and golden plover (?) on the plain. Killed one partridge. Black snowstorm on the ranges north of the village. Went to show my passport, and breakfasted with the Intendente.

Next day the scenery was of the same character, excepting that a long ascent commenced about six miles after starting. Teunia (?) trees on the slopes, and with a glass I distinguished some guernacos on an opposite hill. Arrived at Apucara. Found an honest host named Inviosa, who only charged me two reals (about a shilling) for my servant's fare. Great deal of cultivation on the sides of the mountains; small breed of sheep; bird like a wheatear, also the ground woodpecker, flying about in a country without a tree.

Had been frequently asked since I had entered *Peru, whether it* was true that the Argentine

Republic had invaded or was going to invade Tarija. Doves everywhere. Mountains becoming higher and more rugged in consequence of the sandstone ridges cropping out. Noticed the dottrel I had first seen near Oruro. Snowy mountains to northward. Approach to Ayerberi, also situated on the plain near some mountains. Walls made of turf. Salt space on the right. Large village and handsome church.

May 1.—Hoar frost in the morning and bright sun. March and descent to the village of Santa Rosa, finely situated under the snowy and picturesque mountain of Aurungate, and about three leagues from the source of the Yucara, up whose valley I had been marching. Flocks of sheep, usually attended by a woman spinning. One of my mules taken with the gripes; used Blaine's recipe: squeezed out the juice of three onions with a little native spirit and black pepper; my servant gave it as he lay, and the poor animal got up better directly. Yellow lizard.

Marched on, ascending to the top of La Raya Pass, whence streams flow north and south. Porphyritic, and then quartzose rock; green slopes with sand, and hard beach on the summit, and a place called Agua Caliente, near which I slept.

May 14.—Sharp frost, and a little snow in the night; at 9 A.M. thermometer 76° Fahr. in the sun. The chief spring bubbles up in a

space about a yard in width, temperature 110°; another near it, 102°. Water soft and excellent, although impregnated with sulphur. Moorhens swimming in the pond filled by the springs, round which numerous large blocks of limestone and some of porphyry were lying.

Passed Marenjani, a long street with red houses and a church. Asked for passport, and invited to dinner. Three leagues on to Caiba, leaving Sangallo on the right; kept awake all night by the firing and noise at the fiesta, in honour of San Isidoro of Madrid.* Indian cultivation more extraordinary than I had yet seen, up to the snow. A changing and unceasing vegetation, and cactus plants beginning to appear. Valley two to three miles in width; source of the river Yucara, which then runs on its way to Urubamba and Cusco. Long coarse grass, reminding me of that on some of the lower slopes of the Himalayas. Indians running out, and offering a drink of chicha. Valley narrows to a mile in width. Low hills on the right, apparently covered as by a shower of stones. Pinta, a village on the left bank with red roofs. Stream from the north joins the river-valley, which put me in mind of the Tyrol, without, of course, a tithe of its ornament. Air perfumed by flowers and plants. Saw an alcalde, the large

* May 10th is the right day; *vide* Forster's "Perennial *Calendar.*"

black red-winged hornet, already noticed, hunting some insect on the ground, as if running by scent. A swing-bridge; several small gulls were flying about over the water—did not know the species. Molle, or pepper-tree, which I had first noticed at Tarija. Half a mile beyond is the village of Chicocupé. A large stream flows through a slaty gorge and joins the river from the right. Blue plums and fruit resembling barberries.

Arrived late at Quiquichani; passed on next morning and observed a ruin on the hill on the left after three or four miles. A fly on the stream closely resembling the English mayfly: gulls and tame ducks were preying on them. First humming-bird I had seen since descending into a warmer country; also a fly-catcher. Road cuts through some gypsum and clay-slate, then passes to Urcos, a village where it traverses a small river; then over a hill descending upon another village, Uaro, surrounded by mountains, at the head of another valley. Saw deer, said to be very common; appeared to be of the same kind as the deer of the Pampas.

Thence to Andahuayco, where there is a lake. The track passes under a Spanish archway with an inscription; but as it was raining very heavily, I did not stop to read it, or to examine the Indian graveyard near it. Thence to Orepesa, *near which* is a fine mass of Inca

masonry named Rumi-colca, said to have been the palace of the last Inca but one, Huanca Capac. The river of Urubamba, previously noticed, again makes its appearance, and after being in sight for four or five miles, turns away to the right through the hills, after having been joined by the united streams from Cusco, crossed in the way thither at the village of San Sebastian.

I was now only four leagues from Cusco; the weather very beautiful. Saw the city first from about eight miles' distance. Passed San Sebastian and San Geronimo, called "villages of the sun," as the Indians who live there and cultivate their own land are descendants of the Incas, and never work for hire. The approach up the valley towards the city is due westward, and for about the last three miles the road is wide and in tolerable order for a carriage, but there is not one in the country—at least I saw none, but numbers of Indians with laden mules, &c.

I was surprised at the seeming extent of this old capital of the Incas, and counted upwards of a dozen steeples and domes rising through a haze that lay on the city, amongst which the towers of the cathedral were somewhat conspicuous. It is built in a *cul de sac* at the upper end of an open cultivated valley, and surrounded by verdant and nearly treeless *mountains of no* great height, with numerous

gaps and small villages; and on the right and north side, close above it, I noticed the grey lines of the far-famed palace and fort of Saxahuaman, or "the Falcon's Nest." I was forced to put up for the night in a wretched room in the public tambo, but I afterwards repaired to the only good fonda in the place, where I was tolerably comfortable, and a Frenchman who kept a flower-garden obligingly allowed my cattle a safe run on his corral. There were three other French gentlemen, two engaged in mercantile pursuits, and one a teacher at the college; and when alluding in any way to the society at Cusco, I can never forget the kind and frank hospitality of La Señora A—— and her distinguished family. At the house of Madame R—— I was glad to find a collection of Indian antiquities: she had made them her study, and was agreeably communicative of her knowledge. One of the most curious was an earthenware figure of an armadillo fourteen inches long. Its tail curled over its back so as to form a handle, with ornaments of gold on a black or brown ground; that on the forehead was a figure of two triangles meeting at the apex; and the shield on the back was divided into eight larger and eight lesser compartments, and marked in them with what were considered to be hieroglyphics, consisting of lines more or less resembling a W, small *circles*, and that description of

ornament usually known as the key border. In the possession of Señor A—— there is a small cup, for drinking from the handle, in the shape of a sitting dwarf, with a head-gear imitating several conical caps fitted one over the other, held on by an imitation of a gold chin-strap, and large earring ornaments shaped like millstones. It is treasured as having been in his family for more than two hundred years, and believed to be of Indian workmanship; but the comical expression of the features is so very natural, that I could not help thinking it an imitation of Indian work by a Spanish artist.

There is a title, an old Spanish one, still remaining in Cusco—that of Conde de Peralta; at Tarija, that of the Marquis of Camperos; and the Conde del Casa Real del Moneda at Potosi; there is also the Conde de Oploca, and El Marques de Otaba, I forget at which place.

It was at the house of Madame R—— that I met the Padre Bovo de Revello (since, I much regret to say, dead), an enthusiastic Italian monk, who had bravely devoted his whole energies to the opening of the Purus, or Madre de Dios river, and the conversion of the Chunchos, as wild as any known Indians, who inhabit the forest on its banks. In a thick pamphlet entitled "El Brillante Porvenir de Cusco," he has given to the world his reasons *and his hopes*, most justly founded, for the

navigation of the Purus, which is said to be free from rapids affecting the currents of the other great rivers. If so, with a steam navigation from Puno, it is only necessary to glance at a map to believe in the immense good that must attend such an undertaking. The padre was never tired of talking on his favourite subject, and gave me a description of the way to the Purus, beyond the Inca Manco Capac's fort of Paucatambo; but Mr. Markham undertook the journey, and I beg to refer my readers to the vivid description of it given in his "Peru."

La muy real, fidelisima y gran Ciudad de Cusco, cabeza de los Reynos de España, so termed in the old royal edicts, &c. The name is properly *Cosco*, the navel or centre of the empire. It contains eight parishes and 25,000 inhabitants, three plazas, a cabildo or palace of justice, &c., containing the public offices; eight churches, seven convents, three colleges, two hospitals, and a museum and public library, in which is a sword said to have belonged to Alvarado, and some dried bodies of Indians (I have since heard they are those of Incas), who had, as usual, been buried in a sitting posture. In the desert of Atacama Dr. Reid found, in the outline of an extensive half-moon, men, women, and children, five or six hundred in number, all in the same sitting posture, as if gazing vacantly before them. They still sit

immovable in the dreary desert, and like dried mummies, by the effect of hot air. There are cookery vessels beside them full of maize.*

In the church of the Compania or convent of the Jesuits there is a picture of the marriage of an Indian woman of rank to a Spaniard, and in another a picture of a Jesuit who has triumphantly overthrown or knocked down bodily Luther, Melancthon, Calvin, and Huss, by means of a book, on which is printed "Exercitia spiritualia;" and the church contains a statue of San Isidio, with red breeches, black gaiters, and a sky-blue embroidered coat. In an adjoining room is the opening of a subterranean passage to La Pila, as the fountain in the plaza is called. In front of the church of Santo Jago is a very elegant stone cross, date on it 1606, very much in the same style as one in Merton College, Oxford.† Near it is the Casa de la Cadeña, so called from an iron chain by which the door is fastened. The criminal fortunate enough to reach the chain before he was captured might use the house (in whose appearance there is nothing remarkable) as a sanctuary, and, if I mistake not, was free from subsequent arrest.

Four of the convents in Cusco are for men, and contain about 150 monks; in the others are more than 400 women. The convent of

* Bollaert's "South America," p. 172.

† "Glossary of Architecture," abridgment, p. 78.

the Augustinos was destroyed by President Gamarra, the ruins of it still remaining. The Augustinos wore a black robe. In processions, the Mercedares, who are most numerous, walk first, the Augustinos next, the Franciscans or Recoletos in grey next, and lastly the Dominicans in black and white. A curious painting of an old procession in the church of San Christoral in the upper part of the town. The convent of the Franciscans is the largest, and appeared to be more dirty and gloomy than the others; that of La Merced has two large open gardens or courts with cloisters of Saxon arches and ornamented Corinthian columns, with coloured and richly-carved woodwork in the roof. It was, I think, under the colonnade I was shown the cell of Padre Losa, described to have been "muy santo"—a very holy man, and who was found dead there, but standing upright without any support. San Nolasco is the founder of the order of La Merced, and the patron saint of Moors and Africans generally. The convents for women are those of Santa Teresa, Santa Clara, Santa Rosa, and Santa Catarina. Of the colleges there is one, the Seminario, for ecclesiastical instruction, where Latin only is taught; and two others for secular education, supported by the Government. There is also a college for girls, the professors being all women, with about 200

students. Public examinations for prizes are held there: one is given for "urbanidad." Government retains the right of sending twelve pupils, and the establishment is said to be better conducted than the one at Lima.

The cathedral stands very handsomely upon a stone platform a hundred yards long and forty in width, with steps leading up to it, and is the finest building in Cusco, constructed of a stone called by the Spaniards "ala de mosca," or "the fly's wing," a sort of porphyritic rock of a light reddish-brown colour, peculiar on account of its containing a great quantity of mica in small particles. It was built over a small pond or laguna, as it is termed, which still, I believe, remains; and I saw a well with the date 1699. Some steps led down to the water, but a blocked-up door prevents further exploration, and I understood that it is one end of a subterraneous communication from Saxahuaman. On the opposite side of the church is another door over a way to the laguna. I observed a large picture of St. Christopher with his palm-tree staff; also a portrait of the Saviour as Nuestro Señor de los Tremblores (earthquakes), presented by San Francisco de Borja, third general of the Jesuits; and Gregory XIII. granted forty days of indulgence to any one saying a third part of his rosario before it. In the sacristy are the portraits of twenty-six bishops who had died at

Cusco; they also show the cross of Padre Valverde. The architecture of the interior is massive, and it has a very cathedral-like gloom. The roof, much groined, is supported by large square pillars. There are sixteen altars; eight boxes of relics from Rome; a thorn of the crown of thorns, an inch and a half long; and 165 lb. weight of gold in the crosiers of the defunct bishops; a beautifully carved screen, with a figure of a saint-bishop carrying his own head. Over the altar, which is sheathed in silver, is a really good picture of the Crucifixion, but its effect is spoiled by a wooden image of Charity immediately below it. There is also a figure of Saint James on a rocking-horse, with a priest's hat.

Adjoining the cathedral is the Ecclesia del Triunfo. A descendant of the Incas lies there embalmed in an old wooden chest; and on the outer wall are two tablets, the one in *piedra dura* recording how the sudden appearance of the Virgin extinguished a destructive fire; and the other commences with "De esto mismo sitio fué visto salir," &c. (from this very spot was seen to sally forth, &c.), but so erased in parts that I could only make out that it recorded the sudden appearance on horseback of the Holy Apostle St. James, to give victory to the Spaniards. Bernardo Diez, the companion of Cortez, was more honest upon a similar occasion,

recording that he could not affirm that he actually saw St. James, but it might have been the Apostle on a white horse who was seen in the mêlée.

The church of Saint Domingo is at least as interesting as any other, as it is built partly width the ruins of the celebrated Temple of the Sun. A bath about eight yards long by six in width, with beautiful water flowing through it; a double tier of columns, one supporting the other, in the inner court; some massive stones of three or four feet in length in the western and rounded end of the convent wall, which is about twenty yards in length; a solid decagonal and hollow stone about five feet long, which is also lying in the court, and of which I did not know the use, though perhaps it might have been one of the pillars by which they used to ascertain the equinoxes;* an opening behind the altar leading on to the top of the rounded wall; a hollow in the wall itself—now covered up; and about seventy yards of ancient wall, most

* To make the computation of their year sure and certain, they used this industry: upon the mountains which are about the city of Cusco there were twelve pillars set in order, and at such distance one from the other as every month one of these pillars did note the rising and the setting of the sun. They called them "succauga," by means whereof they taught and showed the feasts and the seasons fit to sow and reap, and to do other things, &c.—Acosta's History, lib. vi. *chap. 3.* London, 1604.

beautifully built, facing to the north;—are all that remain—at least all I could see—of this once celebrated shrine. It contains some absurd monkish paintings. The convent itself, in which there are fourteen Dominicans, presents nothing attractive in the way of ornament.

May 25.—Very cold and snowy morning; thermometer 52° Fahr. at 10 A.M. in the open air; snow melting as it touched the ground, but the peaks around covered with it, and the highest, on the south, "Intihuatana," belying its name as "the place where the sun is tied," perhaps having some reference to the solstice. The southern isothermal line of 68° traverses South America from Potosi to Santa Fé, touches the Cape of Good Hope, and cuts off all that southern portion of Australia which has become the home of English colonists.*

Cusco abounds with antiquities general and special, but with much sameness of character. On the north side of a long wall are the ruins of the temple or college for the Acquas Escogidas (the chosen), or Virgins of the Sun, now the convent of Santa Catarina; and on the opposite side of the street are the ruins of the Incas' College. In the courtyard of a private residence are the remains of the house of the Inca Tapacarana, having a verandah of six columns, eleven

* Dr. Guy on Climate, *in the* "Vade-Mecum," chap. i. p. 13.

feet high and a foot in diameter, with Ionic-like capitals of solid stone, with an ascent to it by a low flight of steps outlined like a truncated pyramid. The intervals between the columns are partly filled up with a low balustrade much resembling that on one of the London bridges. Much of this front, however, is most likely of Spanish work. In the Calle del Triunfo are the relievos of the sphinx-griffin

breed, known as Las Serpientes, each about a yard in height; and there is also a wall in which are some immense stones, supposed to have surrounded the residence of a great nobleman. One *of them has* twelve sides of irregular length, and

measures on the exposed side about fourteen feet six inches in length, being, in fact, the piedra grande in the house of that name mentioned by Garcilasso.

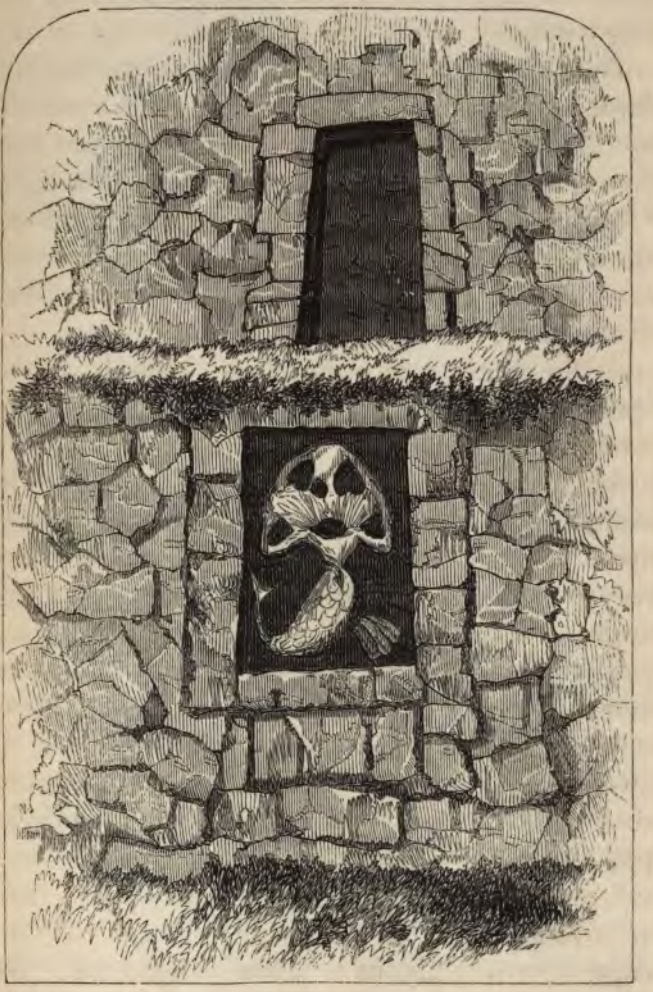
The old Cusqueños seem to have had a penchant for chiselling rock-sides into steps; and in one place, in the upper part of the city, I was shown a curious little zigzag, several yards in length, cut in the rock, for the purpose of drinking chicha as it escaped after having been poured in at the top, perhaps under the idea of aiding effervescence.

In the upper part of the city, under the Rodadero, are the remains of the palace of the Inca Manco Capac, or, as I was told, of a chief named Coleanputa, consisting of a wall, eighty yards in length, of smaller but irregularly-shaped stones, placed just as they happened to fit in, but more regularly round the niches, of which there are seven, at equal intervals, less than a foot in depth, and shaped like a perpendicular slice of a truncated cone. The upper wall in which these occur is about ten feet high. Beneath one of them, in the basement wall projecting in advance of the upper one, is a curious figure in relievo, of a mermaid with a fish's tail, and the

"Mulier formosa supernè,"

about a yard high, in a niche shaped like the others. It much resembles the mermaid-like

figures on one of the Carthaginian mosaics in the British Museum.



There are several ways leading up to the Rodadero or Saxhuaman; one, which passes up a place, or collection of meeting streets, is known as the Seis Esquinas, or Six Corners. I ascended by the mule-path on the side of the stream on the eastern flank, which flows through a rocky gorge spanned by the arch of an old aqueduct, and by another in a horseshoe form, under which there is a "Devil's Bridge" gorge in miniature. This ravine is known as the Chuquechaca; and on the summit, on the left, commence the ruins of the Saxhuaman, all built of large blocks of limestone, and the explorer suddenly finds himself on the open but very rocky space behind the principal wall, about 450 paces in length from east to west, a similar work being extended by the side of the ravine. The stones vary in size, but are closely fitted together, palisade fashion, some of them rising to twelve or even fifteen feet, with an upper stratum of smaller ones, so that the highest part of the wall is about twenty-five feet. The monotony of its length is broken by eighteen salient angles; and I thought that even now it might be turned to very good account as a defensive work. Between this outer wall and the precipice overlooking the city are the remains of two inner walls at less than twenty yards from each other, and on a flat space on the immediate edge three large wooden crosses are placed. The

Rodadero is sometimes called the Chincana (the labyrinth), and also Ancahuaylas (the young eagle).

From this height, about 600 feet above the plaza of the cathedral, one has a fine view of the city, including the white sides and red-tiled roofs, with the numerous and handsome large red belfries of the churches and convents. Behind are green, treeless, and rocky slopes, and elsewhere the horizon is bounded by the open rolling mountain-tops at no great distance; the Cordillera Real, as the great snowy range is termed, being chiefly represented by the fine white peak of Macupata (or Ansanyate), rising due east at the end of the cultivated valley by which I had arrived from Puno. At its foot the town of Santa Rosa is situated. I occupied several days in making a panoramic sketch of the city, &c.

Amongst the rocks *in situ* at the back of the wall is a cueva, or hollow space, known as El Salon, and a subterraneo, or chincana, with descending steps, whose roof, it was said, had been riven by lightning, and whence commences a secret way downwards to the cathedral, of the existence of which I was assured; but, also, that, as some explorers had been lost, it had been purposely stopped up. There is also a rock called El Pulpito, but the groove-worn or

scarped rock, close to the great wall, known as the Rodadero, or place of rolling, has always puzzled people as to its purpose. It is over forty or fifty feet in perpendicular height, but with a sloping side, which has been artificially smoothed by attrition. Humboldt thinks it was used as a gymnasium and place of recreation for the royal children and others, who amused themselves by trying their strength in drawing up weights, or by racing up and sliding down it. Numerous other remains are to be seen in different places in and around the city.

When about to ascend by the ravine I have mentioned, the length of the previous walk is not much increased by a detour to what is known as the mesa redonda, or piedra lisa, a large flat slab of limestone, about nineteen feet across by three in thickness. It certainly does resemble a table, but appears to be in its natural state. The rocks on the ascent above it were cavernous.

From the top of the Rodadero is seen the direction of the different ravines that guide their streams to the valley. One occupies the ravine behind the church of Santa Teresa; another, called the Safi, the largest, descends in the quebrada, or ravine, behind the Belen church, which contains the most holy of all the images of the Virgin, and near which there is a bridge remarkable on account of the huge stones of

which it is built. The four streams from the ravines of Cusco, all so many sources of the Amazon, are called, when united, Tincu; and the two principal ones, thus formed, are called Huatanay, previously to their junction in one stream with the Rio Grande, the Vilcomayo, or Urubamba river at the village of San Sebastiano, already mentioned. I strolled up the Quebrada de la Ortija, in order to look at the banos, or hot baths, about which I saw nothing remarkable.

I was a frequent visitor to the Alameda, a well-shaded walk of 250 paces in length. The "Lat. sud. 13° 35′ 18″," and the "Long. occident 73° 26′ 52″," are marked on the sundial there. Water boiled at 191°, which gives a merely approximate height of 11,100 feet, and on June 20th the thermometer stood at 9.30 A.M. 74° in the shade.

On one of the seats I observed a half-effaced inscription, and was interested to hear that it had been the threshold-stone of the house of Gonzalez Pizarro,* in the north-west corner of the cathedral plaza.

* Juan and Gonzalez Pizarro had been left as governors of Cusco during the absence of Francisco Pizarro, and Almayro endeavoured to supplant them by force; but the arrival of Pizarro himself after his first absence, and the consequent arrangement with Almayro that the latter should for the present undertake the conquest of Chili, where the Araucarian *Indians at the* first discharge of firearms showed less fear

I procured the permission necessary to get the stone, which was partly imbedded in the

than any other savage tribe in America, or probably elsewhere, ever did. Pizarro again quitted Cusco for the coast, where he founded Lima (January 18th, 1535); the Indians rose against him under the command of the acknowledged Inca Manco Capac, a younger brother of the murdered Huasca. In the war Juan Pizarro was killed, and the Spaniards were very hardly pressed until the arrival of Almayro from Chili, whose paramount authority was then acknowledged, and Gonzalez Pizarro was imprisoned with Alvarado, who had been sent by Francisco Pizarro to assist him against Almayro. The latter had advanced to the river Abancay (which I afterwards passed), took Alvarado prisoner, and then returned to Cusco. Gonzalez Pizarro and Alvarado found means to escape, and Ferdinando Pizarro was set at liberty, and the two brothers returned with a force, marched back along the coast by way of Nasca, and fought a final battle with Almayro, who was defeated and subsequently executed. Robertson says, "the battle was fought in the plain of Cusco, which is the level valley by which it is approached from the eastward." The fact of the Indians looking on from the hills from both sides seems to warrant this conclusion. Abancay, however, is on the way northward, and it is possible that it might have been fought on the high open ground north of the city, where cavalry might not remain inactive; otherwise, the Pizarros must have arrived by a circuitous route. Ferdinando Pizarro then went to Madrid, and as Almayro's friends had told their story first, he was arrested there and kept twenty years in prison. Gonzalez Pizarro was afterwards ordered by his brother to take the government of Quito, and explore the country eastward to the Andes. He and his men proceeded inland until they reached the river Napo, where they built a bark, with which Orellma, who was put in command, descended the Amazon, leaving Gonzalez Pizarro to his fate; arrived in Spain, and invented the story of the Amazon and the El Dorado. The *governor, Francisco* Pizarro, was assassinated in Lima by

ground, raised, with the assistance of some convicts, who in all these countries may be often seen working in chains; and I tried to have the letters of the inscription cleaned; but most of

the adherents of Almayro's son. Gonzalez Pizarro, who had returned to Quito, was through intrigue appointed governor of Peru in the Emperor's name—the Viceroy, Nunez Veda, having been imprisoned—and quitted his domain at Chuquisaca (now the capital of Bolivia) in Upper Peru, and repaired to Cusco, and marched thence towards Quito to beat the troops of the Viceroy, who had recovered his liberty, but was taken prisoner and beheaded. Gonzalez Pizarro entered Quito in triumph, and being now supreme governor, was told by Carvajal, his old general, to boldly aim at all, or attempt nothing; and that he ought to begin by marrying a coya, or princess of the blood. Pizarro, however, confined his views to a confirmation from the Emperor of the authority he now possessed; but the celebrated Pedro de la Gasca was eventually sent out to re-establish the royal authority, and having made himself master of Pizarro's fleet at Panama and gained the affections of his troops, he subsequently landed at Tumpez, assembled his adherents in the valley of Xanca, in New Granada, and marched towards Cusco. Gonzalez Pizarro, who had just beaten Centeno, who had surprised Cusco, at Huarina, near Titicaca (I did not know the place), and having refused to listen to the terms offered to him, allowed the new Viceroy to approach within four leagues of Cusco, and then quitted it to be betrayed by his followers (the historian Garcilasso de la Vega among them), to surrender himself prisoner, and to be executed the following day. During the eventful career of Gonzalez Pizarro, he had three times entered Cusco as a conqueror, and had once quitted it as an escaped prisoner, and ultimately with the prestige of invincibility.

The above epitome, for which I am mainly indebted to Dr. Robertson's History, will not, it is hoped, be thought out of *place here.*

them were completely erased, probably by having been trodden upon. I made out the following :—

ESTA CASA SAL-IRA GONCALO
PICA * * * MANDARONSE
TARAR DE AYER SIDO
* * * OR A LA COR.O * * ¶
DESPANA ALESVINC
SIICIIVII DT XACU 10 1548.

Francisco Pizarro, the great chief, occupied a small ancient-looking house, with low rooms and green verandahs, on the opposite corner, or north side of the plaza, and near to the Ecclesia del Triunfo.

The date on the slab was of the year in which Gonzalez was captured and executed, but I could hear nothing more about it.

One street in Cusco is much like another,—narrow, and lying between two whitened walls perforated with square windows, often without glass, closed only with shutters, and defended by a projecting iron grating, often prettily gilt. There is usually a verandah on the upper story, and the entrance door is painted green, whilst the foundation is of stone, and left of its natural colour. At the gate of the old building known as "El Palacio" are columns and coats of arms in grey stone; and in the Calle de

¶ Probably, as a Spanish gentleman in London has pointed out to me, "ayer sido traidor a la corona."

Vallambrosa is a house large enough to occupy a whole quadra, or space surrounded by four streets.

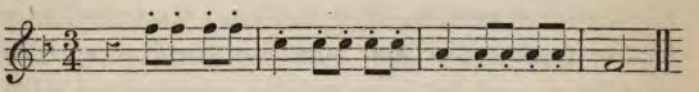
The market is well stocked, among other necessaries, with fruit brought from lower climates,—oranges, cherimoyas, pineapples, pomegranates, tunos (prickly pear), and tumbus, a fruit I had never yet seen, colour like that of an egg-plum, but rounder in shape, with seeds disposed like the grains on an ear of maize; it has an acid flavour, like that of an unripe orange, and a respectable water-ice is prepared from it. It may be remarked generally that the best coffee, the best cocoa, the best cacao, and the best bark come from Bolivia, and each yields a large revenue. Copper, tin, tamarinds, and tobacco are also sent into Peru, whence in return Bolivia receives cattle, sheep, hogs, aquadiente, sugar, and coarse wollen cloths.

The pay of a private soldier in Peru is 10 dollars a month, captain 70, colonel 240, general of division 700. Cavalry receives more than the infantry. The regular army amounts to about 5,000 men.

In the centre of each of the plazas at Cusco is a large fountain; and in order to have the water pure, the water-carriers receive it as it falls in long bamboo pipes with wide tin mouths, through which it is conveyed to large earthenware vessels carried on their backs. The police

are ordered to destroy all dogs that are found loose in the streets, unless their owners have paid an exemption tax; and I have several times counted upwards of twenty large dogs laid out side by side in the Plaza del Cabildo with their skulls fractured.

At night the sereni or watchmen use a pipe, upon which they frequently challenge each other with the following notes, so very lugubrious that I could not help thinking they must have been an original lament for the death of the Inca :—



The best modern "yaravis," or laments for them, or any absent one, are written by Melya, an Arequipenian; the Indians retain several of their own.

The Cabildo forms one side of the plaza, where formerly the bull-fights were exhibited. A new governor arrived from Lima, and took up his residence there shortly before I left Cusco, and the principal inhabitants rode out to meet him.

In one of the public buildings are some paintings which purport to be true portraits of the Incas and their costumes, and some engravings have been made from them, and are sold as true representations, but they are evidently works of

fancy. A resident gentleman, Señor E—— de R——, was obliging enough to draw for me what he said was generally considered to have been their costume. When not in their state dress, they wore, he said, one made of the wool of the black alpaca, no one else being allowed to wear that colour: it consisted of a tunic with a mantle over, a broad red fillet round the brows, sandals on the feet, a cord round the waist, from which was suspended a small pouch containing coca, and, instead of a sceptre, carried, in Druid fashion, a sickle made of gold. Upon particular occasions also the Inca wore a plume of the feathers of the coraquenque,* a species of falcon, and he is generally represented with them. The princes of the blood wore tunics of a cloth of alpaca or vecuna wool, but not black; a smaller red fillet on the head, sandals on the feet, the coca-pouch at the waist, a bracelet of gold on the left wrist, and carried a spear with a golden point. I have been told that more than a hundred families claim to be descended from the Incas. The family name of Ahatualpa was Titiatauché, and from one of them, named Isabel, who married a Spaniard, are descended the best acknowledged claimants to royal blood,—a distinction in which Marischal Santa Cruz of Bolivia is a participator. The fox,

* *Phalcobenus montanus* of D'Orligny.

the condor, the snake, the rainbow, and the sun (*Inti* in Quichua—*Indra* is one of the names for the sun in Sanscrit) were known as the armorial bearings of the Incas. The black poncho, sometimes worn as mourning for the Incas, is called *cuzame*.

On the 6th of June I witnessed the entrada of images destined to form part of the procession of the Corpus Christi on the next day. Patron saints are brought in from the villages in the surrounding country by Indians, who seemed to enjoy the work amazingly, each party vieing with the others in exertion, and even quarrelling as they pushed forward with their glittering burdens—large silver trays, or rather little platforms, on which stood aloft the figure of the Virgin or the saints in their richest apparel. One of them was a huge figure of St. Christopher, carrying a cherub in his arms. Twelve of these images were deposited in the cathedral. San Hieromo, carrying a miniature church, was placed on a table; St. James was seated on a rocking-horse, in a red jacket, salmon-coloured trousers strapped down, with a neat fall, over patent-leather boots; but altogether the *coup d'œil* was brilliant and interesting, and I did not in reason feel disposed to quarrel with a superstition that has at least the merit of keeping the Indians in subjection, and for which, if got rid of, there is *no* present substitute. In 1808

there was an outbreak amongst the Indians, but it was soon quelled. The procession itself of priests, &c., in their robes, and the different images, was very picturesque, the new governor and different officials taking part in it, the civic guard in scarlet uniform being drawn up on the platform in front of the cathedral to salute it as it issued from the portal. It then moved slowly round the square, halting for a short service before each of the temporary altars erected at intervals, and which were best seen at a distance, as a nearer inspection showed them to be backed by looking-glasses, chandeliers, tawdry ornaments, picture-frames, and prints (one, I remember, being "Les Adieux de Fontainebleau"), and the whole interwoven with cloths and silks and flags of the most gaudy colours. Under the reign of the old Spaniards these altars were really made up in earnest; they have been valued at 300,000 dollars, and were watched by a guard. The small street leading into the plaza from the Cabildo was once paved with bars of solid silver, in performance of a vow.

June 21.—Midwinter at Cusco. Thermometer 90° Fahr. at 11.30 A.M., 54° at 9 P.M.

With our knowledge of incessant change, decay, and renewal, it is but consistent to assert that no one person *ever* saw the same view twice, *and no two persons* ever saw the same view at

all, because no person's eyes could be exactly in the same place as another person's eyes at the same moment. A state of perfection, too, would perhaps imply to our poor reason a perfect immutability. We cannot therefore believe matter to have ever been in a state of perfection, but we can believe in an approach to it under the guidance of creative mind. "We now look on space as full: we know that light is propagated like sound through pressure and motion; that there is no substance in caloric; that inscrutably minute motions cause the expansion which the thermometer marks, &c.;"* and after considering all this, the Mosaic account, the heathen chaos, and the almost infinite expansibility and compressibility of matter, and the Darwinian theory, we are but confirmed in a belief of a still greater first cause; and when perhaps we fancy we have got up a respectable idea of an *æon*, we are again intruded upon by the Berkeley theory, which suggests that it is all imagination —itself, of course, included; and we are eventually driven back to the "si fallor sum" of the logicians, and to resume thence the cherished and limitless hopes of the Christian.

I was not, nevertheless, soon wearied with looking at the southern heavens and their seeming "rapture of repose." For nearly half

* Professor W. Thomson on "Atmospheric Electricity."—Royal Institution, May 18, 1860.

an hour, about seven o'clock, the Southern Cross and the others surrounding it remained, comparatively speaking, alone in their grandeur. Five of them, remarkable for their regularity, are formed chiefly by large stars, four of the first magnitude, including Canopus, being visible. In the centre of them, and upright for some time after sunset, is seen the Cross, its lower stars elevated at an angle of about 45°.

Cusco was not chosen as a capital without good reasons. It enjoys comparative immunity from earthquakes, and a series of magnetic experiments might therefore, I presume, be carried on there with advantage to science, considering the extent of volcanic action in these countries. There is a superior clearness in the atmosphere above this old capital of the Incas which seemed to me to bring the Cross nearer to the earth than elsewhere.

The three large stars and one smaller one of which it is composed appeared to be calmly floating in mid-air; that there was space around them, and space far beyond them, seemed evident to the naked eye, whilst their soft but ineffably lustrous effulgence far surpassed in beauty any light shed on earth by a northern constellation, and was not for some time diminished by the rapidly accumulating brilliancy of the Milky Way, whose *course towards* the north-east was soon marked

by what seemed to be a chain of illuminated clouds.

Humboldt says: "The two great stars that mark the summit and the foot of the Cross having nearly the same right ascension, it follows that the constellation is almost vertical at the time it passes the meridian. It is known at what hour of the night at different seasons the Southern Cross is erect or inclined. It is a time-piece that advances very regularly four minutes a day, and no other group of stars exhibits to the naked eye an observation of time so easily made. How often have we heard our guides exclaim in the savannahs of Venezuela, or in the desert extending from Lima to Truxillo, 'Midnight is past, the cross begins to bend.' How often these words remind us of that affecting scene where Paul and Virginia conversed together for the last time, and when the old man at the sight of the Southern Cross warns them it is time to separate."

More remarkable perhaps, on account of its singularity, is the hole in the sky (for it appears to be nothing less)—the dark space known to sailors as "the coal-sack." It is well known, even to those who have not seen them, that one of the peculiarities of the southern heavens are dark and starless spaces, but "the coal-sack" may be termed black in comparison with the surrounding sky. It lies on the left of the Cross

as it faces an observer, and nearly touches the lower part of its major axis, which it equals in height. The curious abruptness and freshness of the oval-shaped and broken outline of its entire circumference suggests the idea of its having been formed by violence. It looks as if the canopy of heaven had been shot through. The edges of two if not three folds or strata, so to speak, of which the Milky Way is seemingly composed, are seen on the left side more particularly in receding perspective, and gradually leading to and blending into what appears to be black, lightless space beyond. Placed at the South Pole, and so unlike anything else in the sky, it has an aspect of special design where all around is for design. It can be imagined to be a place of exit or ingress for mighty rushing forces; the adit from light to a Tophet of outer darkness, or a "black Gehenna," with the Cross shining with a purpose in front of it. Tasso, as far as I know, is the only great poet who mentions the Cross—

> "Ed oltre i regni or e perpetua state
> La Croce, e 'l bianco augello, e i gigli d'auro:
> E, per battesmo delle nere fronti,
> Del gran Nilo scoprir l'ignote fonte."*

But it is, I think, to be regretted that, to say nothing of the ancients, neither Dante, Shakspeare, Milton, nor Byron had ever seen it.

* Canto xvii. v. 94.

July 13.—Started towards Urubamba (Oro Pampa); arrived late at night. The ascent begins in Cusco up the street leading by the church of Santa Anna, and the track continues along the paved road of the Incas, and by the side of the Incas' aqueduct, which brings water from a distance of three leagues. Glorious view of the snowy range, which is continued on to Quito; two peaks rise very conspicuously. Two kinds of wild deer are found on the green, open, treeless, and elevated hills around, more particularly to the east of the track. Light-coloured small deer, one of the same species that I had often seen; and another, whose skin I saw at Cusco, is larger, and probably resembles the common red-deer. On the summit of a very long and tedious descent to Urubamba are two watch-towers (one surmounted by a cross), communicating with one nearer Cusco, so that an invading enemy could hardly escape observation.

Urubamba is entered by a sort of gateway, the road leading over a lofty bridge of one arch thrown across the river Vilcomayo, which I have already mentioned as formed by the streams from the hills around Cusco. Mr. Markham informs me that the ruins of the Incas' summer palace at Yucay are to be seen about a mile from the town up the river. A piece of cork thrown into it would probably find its way to the Atlantic. The town seemed

made up of a confusion of long walls and rows of poplar-trees, with large and smaller red-roofed houses and a few shops, and all surrounded by green and lofty mountain slopes, forming the valley through which the river flows, and down which I proceeded on my way to Ollientay Tambo, one of the four tambos or border forts built by Manco Capac. "Ollientay Tambo on the north, Pauca Tambo on the east, Paccari Tambo on the south, and Lima Tambo on the west."*

Pretty scenery after emerging from the stone walls by the side of the way. Hedges of cactus, with aloe-trees in flower; small clear stream from the hills; patches of lucerne (alfalfa); maize-winnowing and sheep-shearing. Open marsh, but pretty place called Media Luna; bed of trachyte on left side of valley. Beautiful approach to Ollientay Tambo. The valley is narrowed to about a mile in width by the nearing of the almost perpendicular mountain precipices, much covered with bromelias, while the plain was yellow with the blossoms of a plant much resembling broom, and seems to be bounded by the snowy peak named La Veronica. The first indications of old building for fortifying purposes are seen at Pacha, by the side of a stream coming from the south. By the track-

* Markham's "Peru," p. 90.

side were almonds, peaches, quinces, aloes, barberries, trumpet-flowers; and ducks, widgeon, and humming-birds were on the wing. The rock usually porphyritic, but I noticed a little grey granite. The land was artificially disposed in plateaus, with hedgerows and fruit-trees, having a more than usually civilized appearance. The river descends to traverse the rich valley of Santa Anna, famous for its coffee, cotton, coca, and sugar, and is then joined by the stream from Pauca Tambo, and afterwards falls into the Apurimac and helps to form the great stream of the Ucayali.

Mr. Markham has given in his "Peru" a very interesting account of his visits to Laris and Pauca Tambo; and the literary world is much indebted to him for his translation of the drama known as "Apu-Ollientay."

I think the ruins of Ollientay Tambo are the most curious, and one of the four the most worth visiting of any, excepting the towers at Hatuncolla. They can hardly be called ruins, being unfinished buildings, and look as fresh as if they had lately been discontinued. An excellent general view is obtained behind the village and facing the gorge opening into the valley from the north-east, at the end of which the ridge of a snowy mountain is seen. The near view on the right is that of the end of an abrupt and precipitous ridge rising immediately up to a

height of a thousand or twelve hundred feet, afterwards, however, much increasing in elevation, with look-out towers in the direction of Cusco on some of the most conspicuous points. I could not but be reminded of some of the hill forts in Little Thibet, and of the Genoese towers on the way inland from Trebizond. As well as I could judge of them in the distance, they were of simpler shape and construction than those at Hatuncolla. More than a dozen curious-looking buildings intended for different purposes, but all capable of aiding, if necessary, in repelling a hostile ascent or descent, are scattered, with great attention to relative position, over the lower part. Some have the appearance of sentry-boxes; others, larger, of isolated outworks to be defended by two or three men; others are constructed as mere walls, breastworks, or terraces,—one of them, in particular, being capable of holding a hundred men, within niches in the wall, and with their backs to the hill, so as to be safe from arrows or stones rolled down from above. On a high and almost inaccessible point are two small towers, said to have been used as a prison, and not far from it is a precipice, over which were thrown those condemned to death, and human bones are still to be found: I searched, but saw none. The ruins, or rather remains, of the unfinished palace on *the opposite* side of the opening are on a large

scale, ascending in long terraces from the bank of the stream, and backed by a long wall which has been carried up the hillside to a flat space where M. Castelnau found a small dial engraved upon the rock, and which he describes, but I did not then know of. The most prominent piece of building is a blank wall averaging about fourteen feet in height, with a façade about fifty feet long, made up of six large slabs; and, in order to ensure their fitting closely together, a thin flat piece of the same material (a light reddish-coloured stone) has been driven in between them. There are slabs much resembling these, and forming four sides of a pentagonal room (the fifth being open), on the summit of one of the Mexican teocalli figured in Lord Kingsborough's work. Huge square-cornered solid masses of chiselled masonry are strewed in front and around it; the extreme attention that has been paid to fineness of edge and flatness of surface seeming to indicate that they are the latest buildings of the time. The steps cut in the rock are known as the Incamisane; the whole ruin is termed La Fortalezza, or Pincullona in Quichua. The three principal ruins are styled El Monasterio, and the towers, in Quichua (at least those whence the condemned were precipitated), are called Orquas.

The story goes that Ollientay was in rebellion against the Inca because he wished to marry one

of the Virgins of the Sun. He fled, and built some of the fortifications here. The troops of the Inca were expected to descend from the ridge, but they surprised him by way of the quebrada on the north. But the other great buildings, unfinished as they are, are assigned to a dynasty ruling previously to the inroad of Manco Capac. (*Vide ante.*)

I returned by the same way to the Urubamba, and left it by ascending the hill, probably about 1,200 feet above the town. Turning westward, reached Maras, a large village, distant about four miles. Noticed the arms of some old Biscayan family carved in the woodwork over a door. The track lay over high tableland, the Veronica rising in great grandeur as the centre and snowclad peak of a long and precipitous ridge on the right. Extensive patches of barley; harvest going on. About fourteen miles from Urubamba, came in sight of the plain, or Pampa de Anta, about twenty miles long, with a less width, and watered by a stream. Saw several flocks of ducks, gulls, and snipes. Arrived at village of Huaycondo, where I joined the Camino Real from Cusco. Fiesta del Carmen going on; dancing and noise. Kindly received by the curé at Surete. A traveller here, arriving late at any place where he has no particular introduction, will do best to go at once to the house *of the alcalde* or the curé; and he will usually

be received with hospitality, and will find means of recompense from his travelling stores without giving offence before he starts in the morning.

From Surete passed the eight-leagues' stone from Cusco, which bears due east from the top of the hill, about two miles further on; Lima marked at 187 leagues from Cusco. Descent of at least 4,000 feet to village of Limatambo. Black and white crow; vultures very common. Shrubs on the side of the hill. Goître prevalent, with sickly aspect in the natives. Castor-oil plant; ebony fern; Mexican broom; lupins in full flower. Scenery reminding me of the lower slopes of the Himalayas. Large trees, called, I think, pisonay. After a very steep ascent of four leagues arrived at Mollipata; deep fissure, bridged over, at foot of descent. The Limatambo torrent joined by another from the right. Gypsum; fuchsia in flower, and red air-plant flowers, and others red and blue, with a many-pointed leaf, glazed like a laurel-leaf. The stalk of the maguay, or aloe, is cut, and dried for three months, and then used for ladders, and roofs are also made with it. Continued on to Baranca, or Barras (?). Aqueduct made by the Jesuits for their hacienda in the vicinity. Deep ravines with precipitous banks. Small but full stream from the snowy ridge. Long and steep descent to the famous swing-bridge over the Apurimac. Masses of gypsum; fuchsias and

gigantic cactus, looking like bare fir-trees in the distance. Bridge about eighty yards in length, not seen until nearly close to it; it swings between two towering mountain-sides of reddish porphyritic rock, which are nearly precipitous. The Apurimac, as large as a full-sized salmon stream, rushes from east to west over its rocky bed in the ravine, at a depth, I thought, of about 140 feet beneath it. Huts are erected at each end, where toll is paid, and where the mules' cargoes are taken off and adjusted, so that they may not be too heavily burdened *in transitu;* and some of the luggage is carried over by men who are used to it. The mules do not appear to be aware of their danger. The bridge, of coarse matting, made of the fibre of aloe and cocoa-nut, and twisted hide, is about twelve feet in width, and curved in the centre by its own weight. There are some open side ropes, of little use in preventing a fall, of which there would seem to be occasionally no inconsiderable chance, as the bridge swings slightly with the wind. No accident occurred. Some day doubtless there will be a splendid iron bridge, which ought to be placed nearer the water, allowing for the height of the river during a flood; this will, however, involve the necessity of cutting an ascending road through the rock. The river, when very low, is fordable a short distance in the ravine above *the bridge,* and mules are sometimes passed

across there, and contrive to get up the bank afterwards. There is still a fatiguing ascent from the bridge; and I arrived, after a march of five leagues, at Curahuasi, on an open and verdant tableland with trees, and cultivation displayed in agreeable contrast with the wild scenery I had so lately left. The sand-flies, whilst the luggage was being passed over the bridge, were exceedingly troublesome. I watched one of them on my hand with a microscope; he is a pretty mixture of buff and silver, and deliberately bites a bit out of the skin and flies off with it, if disturbed.

July 22.—Six leagues farther to Abancay: long ascent after starting, by a track winding amongst the hollows and hills of rough mountain downs, with a few small farmhouses, but otherwise covered with long coarse grass, and much split by fissures. Some pretty patches of forest in the most protected spots. On the summit of the hills my attention was attracted by an extensive deep-looking hollow in the distance on the right of the way, and filled with a dense vapour from the heat below, and its dark precipitous sides made darker by the shadows of the clouds moving on the snowy peaks above it. My guide told me it was the valley of Santa Anna, a continuation of that at Ollientay Tambo. The bed of the stream becomes deeper as it nears the plains. Saw a deer, which I tried to stalk, but unsuc-

cessfully, and the village of Abancay was visible at the foot of a long but gentle descent of not less than ten miles in a southerly direction. Verdure everywhere. Forest increasing, and mountains in all directions, but the country generally open, so that it could be seen, and very beautiful it was. I observed porphyry and gypsum on the track. Found the heat very great at Abancay. Passed through the village to the sugar hacienda of Señor A——, who had kindly furnished me with an introduction to his administrador. He was absent, and his family did their best to make my quarters comfortable, but the mosquitoes were very wide awake. One of the farm servants showed me his hand: it was positively freckled with sand-fly bites; but he said he got used to them, and did not much heed them. About half a mile off were the ruins of another hacienda that had once belonged to the Jesuits. A small stream waters the sugar-cane brakes, and its banks are covered with dense vegetation; and by the path-side, near a small bridge, I noticed some exceedingly beautiful flowers on a creeper, which I neglected to secure then and there, imagining that I should see many more of them, but I have never seen it before or since. It consisted apparently of two leaves placed like a butterfly's wings, with a circular calyx formed by petals between them, *less than half* an inch in diameter, and of a

purple colour. The leaves, about an inch long, resemble in shape the green leaves of an English moss-rose, but they were of a pure rose colour: probably it was one of the *Bougainvillia.*

From the hacienda there is a descent of about a mile to the old stone bridge of Puchachaca, built by the Spaniards. The river Jauca is here a large mountain stream running westward, and is lost in a gorge a little below the bridge. Wild-looking and magnificent slopes. Haoray is the name of the very high peak on the right. I do not know the spot where Gonzalez Pizarro was finally taken and beheaded by the Virey Gasca (1548); it is said by Robertson* to be about four leagues from Cusco. I had probably passed over it on the tableland to which the track rises immediately after leaving the city. Nor do I know Chupaz, the spot where the assassination of Pizarro was avenged by the defeat and capture by Vaca de Castro of young Almayro, afterwards beheaded by his orders at Cusco.†

"When Pizarro was advancing to Caxamarca,

* *Vide* Robertson's "America," vol. iii.

† It was at the river at Abancay, and at, I was told, the place now spanned by the bridge, that Almayro, one of the original companions of Pizarro, having returned from Chili, and made himself master of Cusco, advanced thence and beat Alvarado (July 12, 1537), who had been sent by Pizarro from Lima with a force to relieve his brothers, whom he believed to have been shut and besieged by the Indians in the former city.

to pay his treacherous visit to the Inca, he passed, whilst yet as a friend, through a desert and defiles where he and his forces could have been easily destroyed." But there is a something in the open aspect of the country, traversed then probably by the same paths that wind over it at present (and seemingly, as with the tracks of the North American Indians, carried purposely as much as possible from one open spot to another), which rather encouraged the impression that, under all circumstances, the danger from ambuscade encountered by Pizarro and his enterprising followers was in most places not so great as it has been supposed to be. I may be wrong, but such was my impression.

From the bridge there is again a long ascent to Carnuacâna, said to be due west of Cusco; Lima west-south-west of it. The cooler air more and more refreshing. Dead coral snake; elder-trees, with which the Alameda at Cusco was planted; tree called pati; cotton plants; algerobas. Horses treading out wheat, as did the oxen of the ancient Egyptians. Ascent still continued for about four miles. Small lake with long rushes; killed ducks. The track then runs along the side of a limestone ridge for three miles, whence I descended to the valley and river of Pincos. Mules laden with reddish rock-salt, brought from beyond Ancahuaylas. Heard a *wild musical* screaming, somewhat resembling

the Swiss jodeln. Thence to Ancahuaylas, having slept at a miserable post-house, close to the stream. Noticed flocks of small birds resembling mule-canaries, and three kinds of doves; a bird, otherwise much resembling the common European sparrow in appearance, but with grey and brown stripes on the head; plant with small oval serrated leaf, bearing a white flower, looking as if made of spermaceti; a brown thrush, and a blue and grey bird like the fieldfare.

Door of my room in the corner of the plaza attempted by thieves in the night, but they made off when my dog began to growl, and I told them I was armed. Heard them exclaim, "El pero, el pero."

Road continues up the cultivated valley, afterwards an ascending defile, emerging upon an open country, reminding me of the Highlands of Scotland. An extremely cold Scotch mist. Porphyry, limestone, and slaty rocks on the summit, with long tufted grass, dwarf shrubs, scoba, and barberry, altogether forming a beautiful and heathery tint, with occasional snow-like patches of a dwarf thistle, whilst vecunas were seen instead of red-deer; large partridges or rail, and the snipe-plover or dotterel, something like the kildeer-plover of the United States, but shorter in the leg, the figure more like the English sanderling than any

other bird I know. I had already shot this bird on the plains of Oruro, in Bolivia.

Long march and descent through a glen to Chincheros, where I arrived late, in a hard rain, and was obliged to seek shelter under the eaves of a house in the plaza. A kind of typhus fever was raging in the country, and the deaths amounted to about a dozen in the day.

The first object I saw by daylight, in this deserted and wretched-looking place, was a young man stripped and shivering, standing in the small stream that ran down from the hills through the plaza, whilst a friend was constantly replenishing a water jug, and pouring its contents over him. I gave him some simple medicine to take when he got home. I understood that tamarind-water was another remedy in use. Called upon the curé, and ascertained from him that those attacked rarely or ever recovered. "Se toman, y se mueren" ("they take it and they die"), was his reply, with a shrug of the shoulders. It seemed that there was no medical aid to be obtained, by the poorer classes at all events; and I thought of the expense that had been so lately incurred in the processions and the temporary altars I saw at Cusco, and how much better a large proportion of it might have been employed. After distributing a little more medicine, I marched on to the valley of the Pampa, *lying north-west* by south-east, the river as large

as the Apurimac, running from north to south. After the descent, the path winds along the bank through forests of maguay, algeroba, quibrango, cactus, pisonay, and pati; grey butterfly; snails numerous; ladybirds on the tree-leaves. Came suddenly upon the flayed carcase of a feline quadruped, close to the pathside, which appeared to have been lately killed. The combination of strength and activity, evidenced in the bared muscles of its long and powerful limbs, was in keeping with the arched back and symmetrical figure of a greyhound, though it much exceeded the largest in size. I am sure, also, judging from the length of its tail, that it was the carcase of what is figured as the black tiger, a very savage animal, of which I since saw a skin, dark with darker spots, giving the idea of a cross between the cougar or lion (gato montes) and the jaguar.

Thought that there had been a lake in the district, on account of the immense quantity of alluvial deposit, and subsequently found that the river had worn its way between two walls of it, at least two hundred feet in depth. A mile further passed the river by a swing-bridge, only six feet above the water; it had been destroyed in the civil wars, to prevent the march of troops to the southward. Slept in my tent on the bank; sand-flies again in the morning. Ascent to and beyond Ocros; saw entrance to a now unworked

iron mine. Descent of three leagues over mountain downs, covered with long grass, to Enastura; grass on fire at the summit of slope; saw a partridge. Very extensive and treeless view, in the direction of Ayacucho; snowy range would have been visible, but it was clouded. Long white ridge of trachyte. Slept in corridor of the post-house, having the mules watched at night, as I was told there were robbers about. My servant, who subsequently robbed me, and went off with two of them, was all the time making the necessary arrangements with a civil-spoken fellow, who joined him, as if by chance, on the road, and whom he represented to me as having been sent to purchase medicine, to cure the inhabitants of the fever districts.

Left Matara post-house, where I had slept. Extensive patches of ripe barley on the plain, which was intersected by deep ravines. Country very open between two ridges; distant view of the mountain slopes on the right, where the battle of Ayacucho was fought. The track descends upon a bed of trachyte, and it occurs in great masses when approaching the town, where I arrived late, but found a very hospitable reception with the family to whom I had an introduction. Heard at a chemist's shop that a doctor had been ordered to start for Chincheros.

August 8.—Thermometer at 72° in open shade *at noon.*

Ayacucho is a large and rather straggling place situated amongst gardens and avenues, traversed by a ravine and a stream, at the foot of a vast and comparatively barren slope. On the north of the town the snowy peaks of the Cordillera Reale came in view. There are about 14,000 people, two convents for women only, a college or seminario for ecclesiastics, two public schools for boys, and one for girls. I observed that Greek is not taught anywhere inland, but the education consists of Latin, history, *urbanidad*, and mathematics; with embroidery for the girls. In the plaza, where fruit, coca, meal, sugar, clothing, and shoes were sold, some Indians, decked out in gaudy colours, were amusing a crowd and collecting money by their buffoonery and mimicry, and keeping up a discordant noise by rattling large scissors together by way of a castanet accompaniment to their songs, as I was informed, in praise of the Incas. Partridges for sale, said to have been killed with a hawk.

Took leave of my kind host and his family, and marched over the plain towards Huanta, six leagues in advance. The track descends into the deep ravines in the white trachyte. Dust and heat annoying. After two leagues, descended to a stream running west. Women selling chicha. Aloes and mollé trees. From the track above, and distant from it about a league, there is a full

view of the whole battle-field which gave independence to Peru (December 9, 1826).

The Spaniards retired *en masse* to Cusco after a smart action at a place called Reyes. Bolivar, commanding the revolutionary army, was at Lima, Lord Cochrane blockading the coast. After remaining five months at Cusco, the Spaniards advanced, and gained a success at Quiesca, on the right of the road from Cusco, and about four leagues from Huamango, the town I had just quitted, but which since the decisive battle has been always called Ayacucho (the corner of dead men).* The revolutionary army, under General Sucre, retired and took up a position on a *pampa elevada* or plateau on the slope of the mountain, three leagues from the town. The Spaniards were still higher up on the slope, about four miles from them, with their cannon on a commanding ridge. The engagement began at night. The Virey Lucerna had ordered the Spanish army to descend and remain in line of battle so as to be ready for action at sunrise. For some reason this order was not given or not well obeyed, and two battalions only of a squadron of cavalry of about 2,000 men were on the plain in the morning. The fight did not last more than two hours. A decisive charge was made by the patriot cavalry under the

* Markham's "Peru."

English General Miller; and the chivalrous young General Cordora, when about to lead his men to the final struggle, having been asked at what step they should advance, replied, "A paso de vencedores." The Spaniards never recovered this defeat.

Left Ayacucho, and slept at the house of an absent curé bearing the name of Godoy. Thence a descent of a few miles to Huanta, prettily situated in a hollow in the open valley, the mountain slopes rising on the right.

August 15.—Thermometer 70° at noon, in the shade of my host's verandah, and 112° in the sun.

Huanta is a small town with a population of about 7,000, chiefly connected with agriculture, and thriving on account of its position on the high route towards Lima. Huancavelija, with its once celebrated quicksilver mines, lay some leagues to the westward. Well-shaded walks, between stone walls bounding numerous farm enclosures and small gardens, patches of lucerne, &c., are extended for some distance around, and a quantity of ripening barley was visible on the hills. The web of a small but beautifully coloured spider, which I had never noticed before or since, was here very common in the hedges. The copious stream which waters the south end of the town comes from three lakes on the hills to the north

of the town. Women here generally dressed in felt hats, blue jackets, and red petticoats. The Indians on the sierra pay twelve reals each as a tax to the Peruvian Government. Formerly each Indian proprietor paid six dollars and two reals annually. None of the missions in this part of the country are now in existence. In August, 1855, three Franciscan monks went from the convent of Ocopa (a few days' march in advance) to preach to the "Chinchos Infieles," but were murdered by them at Chamayto, about eighty leagues below the valley of Santa Anna. The wild Indians are very numerous on the other side of the sierra to the eastward, called, I believe, Los Montes de Chimaraes. The same customs I have already noticed are observed among them after a birth—the paterfamilias, not his wife, is the object of interest and attention; and there is no difficulty in believing that they stamp upon their women and children to drive away an illness. They sometimes kill their children that they may not suffer, and they place flowers upon their dead bodies to take with them to heaven. If a black butterfly or a snake come to their hut they expect a death. They try to drive away the lightning by flighting their arrows at it, and say that the Great Spirit is angry when they feel an earthquake.

I was offered what appeared to be a cup of *coffee, which,* without having the aroma of the

berry, was, at all events, a tolerable substitute for it. It was the invention, so the ladies of the house told me, of a nun in an adjoining convent, who suffered from want of sleep. It was made with culantro, or coriander seed (there was some growing in the garden), which is roasted, ground, boiled, and infused with cream and sugar, in the same way as coffee, and they spoke very highly of it, on account of its quieting and sleep-inducing qualities; and I am inclined to think that their praise of it was not undeserved.

From Huanta there is a descent of about five miles to the river here called the Huarpa, which has its source near the Cerro de Pasco, and is joined below the ford by the Antipaco. Saw a stoat run across the track on the ascent, which is continued over barren mountains, and in one place I was surprised to see a number of willows, until I found a spring higher up. Porphyry in masses on the plateau; bird like a magpie; cactus plants. Slept at post-house at Maicos. Ascended still higher for several miles up the slope; extensive, but treeless view. Large masses of porphyritic rock cropping out and supporting alluvium. Arrived at a place called Ruma Huasi, or the Stone Houses, being rocks, one of which was hollowed out, so as to be habitable, and a cross had been cut on it. There were also some ruins of an old building by the Jesuits. A snowy sierra on the west about

sixty miles distant, and running north and south. Ayacucho bore south-east. Grass and broom on the side of the hills. Saw some snipe and plover. Hospitably received by the curé at Parcos, a village on the open waste. Postmaster asked two reals a league for a load-mule; I gave him one and a half. In the way was surprised by my muleteer bringing me some *Lichen Islandicus*. He was aware it was used as a medicine. Heard what I did not know before—that strong moonlight on the sore back of a mule affects it for the worse.

Before arriving at Apanacara, on the top of the hill, I was surprised to see rocks of a coarse porphyritic grit protruding through the trachyte surface, in perfect cones, of five, ten, to twenty feet in height, in the most curious manner, such as I never saw before or since. I have already remarked, that one of the peculiarities of these elevated plateaus is the cropping out of lofty isolated rocks, where there are no others in sight for miles around; but they are usually abrupt, angular, and flat-topped. But these sugar-loaf-like formations have such smooth and regular sides, that they may be imagined to have been chipped into form by the natives, amongst whom probably there is some tradition connected with them, which, however, I had no opportunity of inquiring about. In no country in Europe or *Asia could they* have escaped being attributed

originally to præter-human agency. There is no appearance whatever of crystallization, like that of basaltic columns, nor of their having been craters, like the mounds round the newly-raised volcano at Jorullo, in Mexico, and which, to judge of the drawings of them, are very much broader at the base than these I refer to. There were about forty or fifty in one place, and another group of them a little farther on to the left of the track. After reflection upon the manner of their formation, I could hit upon no other supposition than that the mass of which they were composed had been forced when in a soft state, whether by fusion or in a state of paste, or from whatever cause, into the cells of the honeycombed surface of a rock harder than their own substance at the time, but which being, in fact, softer, had acted as a mould that had given way, having been broken through by these hardened and conical formations, acted upon by an upheaving force. The situation, although elevated and open, is not particularly exposed; they are not washed by any torrent, nor could rain or the melting of casual snow have flooded or worn them. Humboldt notices a similar formation to have suddenly shown itself during the great earthquake at Riobamba. (*Vide supra.*)

A bad fever was raging at the village of Aponacara, on the plain, and we passed on to Molinos, a deserted watermill, where one of the

muleteers had to climb in by the windows, and I had the mules and horses housed in the same room with me, by way of precaution. Soon after sunset Venus was on the north-west, Jupiter was splendidly brilliant on the east, and the perpendicular tail of the Great Bear, sometimes called "the dipper" by the Yankees, was visible over the hilly horizon; and opposite was the Southern Cross, not quite so brilliant as when seen from Cusco. Hoar-frost in the morning.

August 20.—One of the men told me that the hills in advance contained antimony. It was a fatiguing ascent, through marshy ground, to the summit of the ridge, in crevices of which the snow was seen. Llamas, crow, hawk, condors, black curlew; and I shot three guillatas (the wild geese of the country). After three miles a large valley opens on the right. The Cordillera Reale again comes in view, rising with great majesty. Pushed on to Apicor (?); no water. A league farther to Carpos. Bad horse-path on the side of the hill. Gave some medicine for the fever, which seemed to be all over the country.

August 21.—From Carpos towards Escuchaca, a small town. Slept there. Fever very bad. Road bad, even for Peru. Handsome bridge of one arch over a full, rapid river, running eastward. Soon after passing Escuchaca I observed *a spring dropping* its waters over stalactites of

its formation into the river, which was running with great velocity over it; rocky bed. Slept in a room at Nemopoqueyo, and marched on to Huancaya, a large open-streeted town in the middle of an extensive plain, yellow with the blossoms of the broom and acacia trees. A larger proportion of cultivation than usual, and I noticed some good estancias. The first people I saw were a group attending a hurried funeral of some victim of the epidemic, or peste, as it is called. It first appeared after the yellow fever had ceased at Lima. That known as the "abdominal fever" is the worst. Indians catch the fever by lying in damp places.

Found out a German storekeeper, who was very obliging in procuring me a comfortable room. Whilst talking with him, an Indian entered and asked for "el remedio," meaning the fever medicine, *alias* "Brandreth's American Pills," which are preferred in some places to "Las pildoras Holloway," simply on account of their name sounding so much like "brandy." Both can usually be purchased at any general store, and are useful in travelling, even if it be only to distribute; and I was never without some Holloway's ointment, and can bear testimony to its efficacy in preventing soreness from insects' bites, and to its great use as an application after the extraction of a "nigua;" though for the latter purpose it is better to diminish its

power by mixing it with about an equal part of spermaceti ointment.

August 27 (Sunday).—Street full of Indians selling coarse cloth, rock-salt, fruit, and vegetables, and I noticed an improvement in the breed of street-curs, which seemed to show an increase of traffic with the coast and the town of Cerro de Pasco. Found some refreshing iced creams at a sort of café.

Water boiled at 190°, giving an approximate elevation of about 11,719 feet. Temperature 70° in the shade, 90° in the sun. A great quantity of rain falls here in October, November, December, and January. In November it sometimes rains for weeks together.

August 29.—Left Huancaya for the convent of Ocopa. The beautiful open valley, dotted over with numerous villages, built apparently with mud walls, reminded me of some of the irrigated plains of Persia. They are often constructed with adobes, or large sun-dried bricks. There was a look of prosperity and civilization about the landscape such as I had not yet seen. Its extent also is remarkable, the valley being traversed throughout its whole length of forty miles by the river Janca, marking its course towards the distant Amazon by the verdure on its banks. Arrived at Concepcion, a small town, after a march of five leagues. A league to the *north* is the convent—a collection of long red

roofs, with a small dome and two belfries to the chapel attached to them, within a large walled enclosure. There are elevated downs of great extent on the south side of the valley, with a higher range behind them appearing at intervals. Noticed a beautiful bell-shaped flower in the hedgerows.

August 30.—It was the festival of Santa Rosa of Lima.* Women were waiting their turn at the confessional at the gate of the convent. Their dress consisted of a flat straw or felt hat, a hood, shawl, or poncho, and a red or blue gown. One of the first things I noticed was a sixty days' indulgence to those who would repeat (I forget how often) the words "Ave Maria purissima sin peccado concepida;" and the interior walls of the convent were much covered with indulgences and inscriptions, verses, texts, &c., by way of votive or memorial offerings. The monks were Franciscans (Recoletas), wearing a grey dress. They received me with great kindness; gave me a good supper, a clean room, and plenty of water.

I have already mentioned the murder of three intrepid missionaries who started hence upon their journey to the Chunchos Indians. The convent had been built only about one hundred and thirty years, on land given by the owner

* Died 1617; canonized in 1671.

of the soil, as a fitting auxiliary establishment to the local chapel of Santa Rosa. It is, I believe, well endowed, and is much respected throughout the country for its charities and religious attentions, and even my arriero, a very brigand-like personage, spoke of it as "La Santa Ocopa."

The celebrated missionary, Padre Plaza, was a monk of Ocopa. He organized the missions from the convent, and died after being Bishop of Cuenca for about four years, much honoured and regretted by the Indians amongst whom he had successfully laboured for nearly half a century, chiefly at Sarayaca on the Ucayali, in the Pampa del Sacramento.

The lives of monks, within the convent walls at least, in South America are more austere than those of the parish priests or curés, with whom the vows of chastity are not always rigidly observed. I remember one priest, a jolly, open-hearted person, who was living openly with a very respectable-looking woman and a large family of his own children. Ecclesiastics in general certainly seem to be more independent here than in Europe. The "Noticias Segretas" contain accounts of the proceedings of the clergy —"Los Frayles viven publicamente con las suyas concubinas, &c." But every curé received a blind Indian in his house, whom he found useful in teaching others.

After leaving Ocopa the track leads on through

the sunny valley, and passes the town of Janja. Some ruins on the hills about a league beyond it are probably those of the temple mentioned by Prescott. The valley here was one sheet of corn cultivation, the best I had observed. It seemed to me for its size to be more completely surrounded by mountains than any I had seen excepting Kashmir. It is spelled "Xanxa" by Prescott. It was invaded by Pizarro on his march from Caxamarca to Cusco. The Indians in vain endeavoured to oppose his crossing the river; and the President Gasca made Janja his head-quarters whilst concentrating his forces before marching to his victory over Gonzalez Pizarro at the same place. The red barren slopes on the southern side were streaked with white trachytic ridges, and at their foot was a lake and a morass about four miles long. Great quantity of alluvium deeply fissured.

Arrived at Acolia. The Indian alcalde allowed me to sleep in the Casa de Jusgado—*anglicè*, the town-hall. His wand of office was made of a wood called chonta; that carried by a higher officer is of jacarenda, or rosewood. The track afterwards rises over the high open downs, and joins again the old paved highway of the Incas from Cusco. It descended here from the summit of an eminence in steps, or rather ledges, affording a proof that no wheel carriages were in use when it was made. Saw some deer in the

distance. Descended late through plateaus of cultivation into the town of Tarma. The lady of the house where I carried my letter of introduction was ill, and I could not be received. Called upon the governor, who with his family were very obliging, and I remained with them until he had found a place for me. Next day the market-place was crowded with Indians. Found two Germans going to Cerro de Pasco, and an American from New York. Tarma is chiefly supported by the agricultural district around it, and contains about 8,000 people. It has two churches, but no hospital or college. In the Alameda is a trophied monument of the President Castilla. I heard that a square league of land already under cultivation, within two or three miles of the town, was worth 2,000 dollars, but that the Government sold the same extent of more distant, wild, uncleared land on the mountains for about ten dollars only, to any one who would run all risks from Indians, &c. The large deer of the country is called "Tarugo." Bought an Indian wooden mask with a sloth's skin attached to it, so as to deceive an enemy or a wild animal by its resemblance to hair; it bore marks of having been struck by arrows. The narrow valley in which Tarma is situated is continued for three days' march up to Chunchamayu, where on the fork of two *rivers stands* the fort of San Ramon, and hostile

Indians occasionally shoot an arrow across from the opposite bank. Another valley up which I proceeded on my way to Cerro de Pasco runs westward, passing Acobamba after two leagues, and Pilcomayo three leagues farther on. Governor tipsy. Saw the town of Junin at the extremity of a very extensive and open plain, with rolling hills and ridges around it. Much verdure, but no trees. The monument where the cavalry action was fought is a very conspicuous object on the plain near the town. The Spaniards under Canterac, and the liberating forces under Bolivar, met on the plain (August 5th, 1824). The Spaniards were defeated, and Bolivar afterwards returned to Lima, having resigned his command to General Sucre, who subsequently gained the battle of Ayacucho.

After arriving at Cerro de Pasco I was told never to engage as a servant a "yellow man" (half native Spaniard, half Indian) who can read and write. Exactly such a one, however, and a powerful specimen too, I had engaged with the assistance of the postmaster at Huancaya. He had taken into his head that the contents of my packages were very valuable, and I had long been distrustful, as he had asked me if I had bullets that fitted my gun, and had been joined by suspicious-looking people on the way. Instead of going at once to the town of Junin, as I had desired him, he pushed on the mules after

nightfall in such a way that I had some difficulty in following them, and finally suddenly stopped when it was quite dark, in an open place, unloaded the mules at once, and when the cargoes were on the ground, went off in spite of my orders to him to reload the mules. He returned, however, in about half-an-hour, having found no one to assist him; and, finally, I succeeded in persuading him to load and proceed towards a light in the distance. I opened the door of a house, and saw two men and a woman in the same bed, with others in the same room, and asked leave to remain on the premises for the night, which was civilly granted. But altogether his conduct, as well as that of the inmates of the house, who came out with lights, &c., induced me to lie down without undressing. I fastened my dog to the bedstead, and remained awake all night, and in the morning I heard him telling them that I had gold ounces (tiene onzas) with me; and in answer to a question which I did not hear, he replied, alluding to my revolver, "Tiene seis tiros." He was extremely sulky all day, and I passed on, satisfied with a distant view of Junin and the large lake of excellent water, and containing fish. The country was of the same appearance—a vast, open, treeless, tolerably verdant, and very elevated plain, with long sloping ranges of hills on each side; and at *night* I slept in a sort of public barn near the

Indian village of Niricaya, where my servant was evidently trying to commence a row by refusing to obey orders, with a view of exciting the Indians to assist him, and his want of success seemed to irritate him exceedingly. He knew, as I did, that the next day's march would bring us to Cerro de Pasco, and that his chance was then gone. I mention this as an instance of the annoyances of the same kind occasionally occurring; and it is to the constant watchfulness they impose that the fatigue of travel in these countries may be mainly attributed.

September 6.—Cold and frosty. Picturesque old stone bridge over a small stream in front of the barn. Some of the snowy Andes on the coast had been in sight on the previous day. The plain was spotted with the greyish-white plant known as "old man," and the still whiter guillatas, or wild geese, were very numerous. Country still open, with vast plains, and occasional ridges, and has a very dreary aspect, being quite devoid of verdure. The track gradually ascends, and passes two lakes, where I subsequently shot wild ducks, &c.; then winds amongst some craggy hills, and descends suddenly upon the large smoky town called into existence by the celebrated silver mines of Cerro de Pasco. These have been excavated on a higher part of and near to the eastern edge of the plain, which is here broken up naturally into ridges and

rocky eminences, and situated between the two great branches of the Corderilla Real, both of which are more or less visible from the vicinity, and rise with great grandeur over the eastern and western horizons. Much desultory fighting took place there during the struggle for independence.

Within the precincts of the town is an isolated and rocky hill, called Santa Catalina, which has been split by the changes consequent upon mining near its base. A wooden cross crowns the summit. Right glad was I after my long journey to dismount at the door of the house in the hacienda of the English Mining Company, and receive a hearty and hospitable welcome from Mr. J——, the managing superintendent, and the other British gentlemen connected with the establishment, one of whom was married to a merry Limeñan, who amused us by her talent for mimicry.

The existence of silver was first discovered (1630) by an Indian, who observed some that had been melted by his cooking fire. The mouths of the principal mine are in a large hollow, which has been gradually excavated, like that of Danemora in Sweden, though not to a hundredth part of its extent, but presenting, as does the whole mining area, the hollows and irregularities of a gravel-pit. I understood that *machinery* was but little used, and the Indians

emerge from the interior, after toiling up, by steep and footworn ascents, of which the roofs are not considered to be particularly safe, with the enormous load of from 150 lb. to 200 lb. of ore on their backs. They are kept to their work by overseers, who are sometimes Indians, receiving higher pay. They wear a peculiar dress of buff-coloured cloth or leather, and carry a whip, which they make use of if necessary; and the cheek is generally distended with the coca-leaf, supplied from the pouch fastened to the belt. I was told that the annual return of the English company's establishment, which is the largest amongst several others, was about £6,000. The works and machinery are far more complete than at any other. The ore, brought from the mines by llamas, mules, or horses, is crushed in the mills, and then placed in one of the circular shallow paved pits, called cercos, in quantities sufficient to thickly cover the whole area; about 100 lb. of quicksilver is then filtered into it through a bag of coarse linen, a quantity of water is admitted, and some half-a-dozen mules are turned in, who are forced to stir up the mixture by a man with a whip, who stands in the centre, until it becomes a dark-coloured mud. The value of the mud ranges from 350 to 400 dollars, and is, of course, well watched. The quicksilver is sufficient to attract to it all the particles of silver, amounting to about twenty per cent. of its own

bulk, and the mud is then washed from the gently sloped floor into a gutter, with gratings in it, by one or other of which the pieces of amalgam are sure to be arrested, and is afterwards separated from the quicksilver by roasting, by which the latter is volatilized. The smelting-house was within view of the hacienda, and, as a stranger, I was kindly permitted to dip a small iron rod into the melted metal, and retain the proceeds as a curiosity.

On the north-west and south-east of the town are low limestone hills, containing silver in a metallic paste. Gold is found at Guernaco, at the distance of a day's journey, in decomposed quartz—about one ounce only to three tons of the stone. Four leagues off is a mine of nickel, called "white copper" by the Indians, and at a much greater distance to the north-west is a hill composed almost entirely of plumbago.

Cerro de Pasco stands in 10° 58′ south latitude. In September the thermometer stood at about 74° in the sun at noon, but the mornings and evenings were much colder.

September 25.—Very cold, with snow in the morning; thermometer at 50°; water boiled at 184°, giving an approximate height of 14,921 feet. Mr. J—— told me, that by observations taken at sunrise and sunset on the day when the sun was in the same latitude as the Cerro, he found the *variation of* the compass to be about five degrees.

I felt what is known as the siroche, or shortness of breath, in the city of Mexico, but not at Potosi, although so much higher. At the Cerro de Pasco, again, I could at times hardly sleep for it, and was told that it often affects a new comer; but when on shooting or sketching excursions I was not annoyed by it at all. The town contains some good shops and houses, in which, of course, grates and stoves are in use. It is crowded with Indians and others connected with the mines, and is generally smoky, and very dirty after rain. A large hill of red granite, named Raco, is a conspicuous object on the plain to the westward, some miles distant. A French gentleman has turned it to good and profitable account, having an establishment there for cutting out thick circular slabs of it, used as wheels to crush the ore in the different factories. The tug of one up the hill by a dozen mules, harnessed two and two, was worth looking at. Parted here with my mules, and amongst them with a horse I had ridden all the way from Catamarca, in the Argentine Republic, and the poor animal was doomed thenceforth to draw a load of ore.

Mr. J—— was good enough to accompany me in an excursion to a district known as that of the Conja Carmen, from a massive rock of conglomerate about twenty-five feet high, remarkable amongst the wild open scenery around by

its appearing to be an isolated remnant where the rest of the formation had been worn away, and perched like a rocking-stone on the edge of a lofty and precipitous bank bounding a flat valley, down which runs a small stream, one of the head-waters of the Amazons. On the opposite is an elevated ridge containing a vast quantity of conglomerate, a hardened beach, in which the pebbles are worn and rounded, though often crushed by weight. Mr. J—— pointed out to me one or two excavations where the Spaniards, and others since, had dug for treasure. They were supposed to have been hiding-places for hunted Indians. Numerous human bones were scattered near the spot; some of them had evidently been imbedded by the weight of other rocks tumbling on them. One found in it was carried to Lima as a curiosity. Two of the most perfect skulls had very receding foreheads, but, I thought, naturally so.

At the foot of the highest peak of this curious range, on the vast plain, there is a bed of anthracite coal, lying on the conglomerate, and over that is a more compact sandstone. At a different place, south-west of the Cerro, are hills of porphyritic paste with conglomerate and coal. The regular working of the coal, if carried on on a larger scale, would perhaps pay better than a silver mine. Seven lakes are visible from the summit *of the Caqua,* which equals in elevation, but with

not so severe a climate, that of the plain of Deotzah, between Kashmir and Little Thibet; yet I saw a humming-bird there and also a partridge.

The grey plant known as the lingua de vacca was very common, and small crocuses also, amongst the tufts of longer grass. Magnificent view of the great Western Cordillera, in direction W.N.W. A peak on the most northerly part towers to a height to satisfy any one with whom "high mountains are a feeling;" and its great elevation is proved by the snows adhering to its almost perpendicular slopes: it is marked on the maps to the east of Caxatumba. On the long, rounded, and grass-covered ridge in the foreground were some curious specimens of the isolated cropping-out rocks I have already alluded to. There were about a dozen in a line, which might have been taken for so many upright houses or decaying towers. The very delicate purple grey on the distant snowy slopes in shadow, in contrast with the glistening peaks and loftier ridges, from which the sun's rays were glancing after having streamed across the Pacific, with the rich golden colour of the foreground, the nearer eminences, and the lengthening shadows of the rocks I have mentioned, combined to produce a sunset effect of marvellous delicacy and grandeur. From the Cerro, in exactly the opposite direction, E.N.E., the equally abrupt outline of the Eastern Cordillera,

terminating in its most northerly extremity by a very elevated peak, rising with almost dazzling whiteness into an indigo-coloured sky. This is, I believe, the Pan de Azucar, or sugar-loaf, of the maps; but if so, I think it is placed too far from the Cerro. The way to the town of Huanuco and the lower plain, including the Pampa del Sacramento, passes at its foot. Amongst other wild animals, a large species of bear is found on its slopes.

The Indians, of course, have their superstitions about the mines. It is deemed unlucky if a woman by herself enters a mine; but if two women are accidentally found talking in a corner, rich ore may be expected in the vicinity. An Indian usually takes a wife for three months upon trial, with the consent of her parents, and if she be not happy with him she presents her patron or employer with a lock of her hair, by which it is known that she wishes to be separated, and be his servant again. They have a mode, somewhat resembling the trial by arrows in Hindostan, of trying to find out a thief by scissors stuck into a sieve, the other end being poised on two fingers of the suspected person, and if guilty the sieve is said to turn, St. Peter and St. Paul being invoked at the same time; but I am not sure of the method. They cure headache by rubbing a guinea-pig over the face and body of *the complaining* person, who is then tossed in a

sheet and bathed. Eight days after a death, no matter by what illness, the Indians wash the clothes of the deceased, usually getting drunk upon the occasion, and afterwards wear them.

October 2.—Hired mules, &c., for Lima, and took leave of my hospitable friends at the Cerro. The track descends into the vast plain of Junin, on which are some villages; I also saw a few llamas. Forded the three streams of the San Juan, the Rio Colorado (I forget the name of the third), running from the northward to form the Janca, which I had crossed this side of Huanta. Arrived near the foot of the western mountains, after a ride over the open and treeless plain of about fourteen miles. The track then passes for several miles through groups of curiously-shaped and isolated red and grey rocks, some of which, about sixty feet high, may be imagined in the distance to be petrified giants, sitting or standing near their grotesque palisaded castles; or friars in their cowls, represented by numerous rocks, appearing to be balanced on pillar-like masses, shaped by disintegration. Passed the night at a wretched single hut called Anticohi.

October 3.—Same kind of scenery; the track enters a valley running north and south. In the afternoon entered a plain which, together with the mountain-tops around, was covered with snow, and arrived late at three huts known as the Casa

Cancha. Bad accommodation, and very cold night. Next morning started over the snow towards the summit of the Viuda Pass, one of the streams just mentioned descending by the side of the track. A mile from the summit are two more huts. The track turns to the right, and is continued over a steep and stair-like ascent to the highest part. I tried to boil water, but had to give it up on account of the wind. The thermometer stood at 65° in the sun at 11 A.M. The height, as given in the maps, is 15,600 feet, very nearly that of Mont Blanc. The same elevation continues for three or four miles in advance, of broken up porphyritic rocky ground, with much soil, amongst snowy peaks and numerous small lakes not frozen in the protected hollows. Noticed a plant with thorns. Suddenly entered a dreary defile, with its sides of limestone rock at first nearly perpendicular, and watered by the head of a stream. After a descent of eight miles, arrived at a place called Julichy. On the soil by the side of the torrent were nettles, ground ivy, thistles, cactus, lupins, willows, bromelia, small elder-trees, &c. Benighted, and, as it was raining in torrents, stopped at the first house we came to. Found there a German carpenter, who had married the native proprietress of the place, and passed a comparatively comfortable night. Continued the descent in the defile. *Rock now porphyritic.* Noticed a bird with

yellow back, and resembling a canary; also some red divers about the water, and a few stunted trees on the mountains. Numerous streams, leaping down, join the river which runs into the sea north of Lima. Path, continuing through rugged and precipitous mountains, traverses a succession of rushing cascades. Cultivation began to appear in terraces. Grain, alfalfa, vegetables, and mollé-trees as the heat increased. Arrived at Obragillo, a large village, and slept at the small inn and custom-house. Sketched my host, a fine-looking man, the next morning. Descent to Santa Rosa, and thence to Caralin. The mountains reminded me, by the black streaks of hornblende rock, of the scenery in Little Thibet; but instead of the gneiss of the valleys of the Indus I observed at last a granite formation extending for a few miles, and then succeeded by a transition rock. I do not think I have seen granite half-a-dozen times since leaving Buenos Ayres and the plains of the Argentine Republic. The lowest I had seen on the west coast was on the way from Bottejas to Quito. The bed of the stream here was of granite, and the surface of that on the pathside on the slope of the mountain was in a state of disintegration, and crumbled if pinched. I had usually noticed it in a similar state before. Professor Ansted, to whom I mentioned this fact, has obligingly informed me that the granite

rocks of the Andes are subject to decomposition from the condition of the feldspar, containing soda, which renders it less durable than if it contained potash like the British granite, and that it would be further liable to decomposition, if containing water, as a hydrate of silica.

I now came within sight of an orange-grove, and the air was perceptibly warmer. At a posada known as "La Magdalena," the landlord told me of a lion (a cougar by his description) who occasionally descended the rocky and precipitous mountain behind the house, and only the previous day had killed a goose and some poultry. The valley now became more flat and open, with fields of maize, alfalfa, and some gardens. Numerous negroes at work in the fields, and in the roof of La Magdalena were some gigantic canes. Scarlet-crested small bird, and another with a brown back and red beneath; also a red-throated grackle, and a blue and yellow bird of the size of a thrush. Slept at the post-house of Cavaliero. Wild-looking fellows about the inn. After about six miles passed the Rio Secco, a celebrated robbing place.

October 8.—Rode towards Lima. The cathedral towers had long been visible over the flat, boulder-covered delta of the valley. The first person I met was a fat, gaudily-dressed negress, with no head-dress, sitting astride between two panniers, *and passing* me at a swinging canter. She had

evidently been sent to sell produce or make purchases in the city. On my right, about six leagues from Lima, were the ruins of Cacamarquilla, an old city built with adobes, or sunburnt bricks. There are also numerous excavations which had been used as storehouses, and maize is still occasionally found there.

LIMA, GUAYAQUIL, ETC.

Entered Lima after a journey which, with excursions, halts, delays necessary and unnecessary, had occupied considerably more than a year from Buenos Ayres. The geographer to the Honourable East India Board, J. Walker, Esq., has obligingly informed me that the distance as a crow would fly is just 1,665 miles, only a little exceeding the direct voyage from London to St. Petersburg, and also that a straight line from Guayaquil to Carthagena, which voyage I afterwards travelled, would cover just 900 miles.

In order to avoid accidents, I had lifted my dog on to my saddle, and the first exclamation I heard was "Jesu Maria!" from a lady who rushed to the window in utter astonishment at the sight. Found a not very comfortable room at the hotel, where I preferred being on the

ground floor, and afterwards regretted that I had not gone to the other hotel in the plaza.

Dined the same evening with Messrs. Alsop, the American house, to whom I had letters, and being very much knocked up, I greatly enjoyed the capital bottle of North American Madeira which they were kind enough to put before me; and shortly afterwards dined with an English party at Mr. Sullivan's (our Minister), afterwards assassinated. He did me the honour of introducing me to General Castilla, the President, who was very courteous in his inquiries about my travels, and offered assistance in the way of maps, &c. He is a short, military-looking person, with features expressive of energy, and almost always appears in a pair of high boots. He was the first President of Peru who remained in office the whole term; and having headed an insurrection against Echanique, his successor, he entered Lima after defeating him in a battle at La Palma (January 5, 1855), between Lima and Chorillos, where I saw a wall by the roadside which had been peppered by bullets.

Lima, with her 60,000 inhabitants, and the society and its attractions there, have been often and well described. As a city it is not nearly so fine as Mexico. The cathedral is mean in comparison, of quaint architecture, and painted with various colours. People about to build have *a fear of* earthquakes before their eyes. These

occur most commonly in October, and I felt one a few hours after my arrival. The last of great severity was in 1846. Some twenty-five steeples may be counted from an eminence behind the baths. Lima boasts of sixty churches and of a proportionate number of bells; but all seemed to have the same tone. One of the best modern residences was occupied by General Flores, then a refugee from the Ecuador. The finest of the old Spanish houses was that of Ulloa, sent out by the Crown as an investigator, and the writer of the celebrated "Noticias Segretas," a curious account of the proceedings, state, and prospects of the Spaniards. Part of it was occupied by the Rev. Mr. D——, the English clergyman. The finest churches and convents (of which there are twenty) are those of San Francisco and San Domingo, of a mixed and fanciful style of building, and picked out with blue, red, and yellow. The shops, and general appearance of the arcades in the plaza at Lima, are superior to those at Mexico, and in the former one often reads an amusing notice against gossiping:—

"Aqui non se admeta Tertulia."

Here also is the first chapel built by Pizarro, and the place of egress from a side street, whence the young Almayro and the conspirators sallied forth to assassinate him. In the cathedral they pretend to show Pizarro's skeleton, the skull

having a peculiarly low forehead; but the identity is doubted. Another of the "lions" is the chapel and cell of the celebrated Santa Rosa. The museum is worth a visit, but I thought it not well arranged. In one case, for instance, would be brilliant butterflies or humming-birds, and anatomical preparations in the next. A small pair of stag's horns were attached to the mouth of an alligator, looking as if they had grown there; but I think the latter had made the deer his prey, and swallowed all but the horns. There is some old Spanish armour and portraits of the Vireys, and also one of the curé who contrived, by perseverance, to get up a cross-breed between the alpaca and the vecuna, and he is there deservedly (as already mentioned) pictured caressing his first calf. The staple fleece is of a good length, with extraordinary softness. I was told that the best information about Lima was to be obtained from someone who had been there only about a week. The Limeñas, however, are not apathetic on the subject of religion. The question of the freedom of worship had lately occupied the Deputados for a week. The galleries of the camera were filled with women, who, excited by the priests, showed their opposition by applauding or throwing bouquets to those who spoke against it; and displayed their dislike to their opponents in such wordy *warfare, that* after three days it became neces-

sary to exclude them. Refusal of toleration was only carried by one vote, and it was known that many voted against it merely because they thought it was not politically advisable at the moment. It is worthy of remark that the only history of the English Reformation in use in these countries is that of Cobbett, translated at Madrid. The liability to be robbed or murdered in the immediate outskirts of the city is in the highest degree disgraceful to the Government of Lima. The delinquents are generally negroes. In the civil war between Castilla and Echanique, the latter, with a view of conciliating the slaves, promised them liberty in two years; upon which Castilla offered and gave it forthwith (October, 1854). Hundreds of these blacks proved themselves most desperate characters. On the way to Callao or Chorillos, they occasionally appear as mounted highwaymen near the city; and even in the Alameda a solitary promenader is liable to attack. One morning a slight, active negro crept over the low wall of the Alameda a few yards in front of me; probably having caught sight of my revolver, and having, moreover, missed his mark, he walked off, carrying a long-bladed knife end on, trying to conceal it. I had paused a moment after a chance look over the wall, because I instantly recognized a powerful young light-haired boatman of Callao, who by order of an officer had been put over the side of the English

steamer in which I was going to the Guano Islands, for insolence to myself in the matter of fare and luggage. He also was creeping up under the wall and bank in the rear of the negro, but the instant he saw me looking at him, he stopped, pretended to be adjusting his dress, and civilly addressed me with "Buenas dias, señor," and walked off, having, as I believe, missed his revenge and his plunder.

A building noticeable from the Alameda, with a black roof upon pillars, is the Yellow Fever Hospital. The Rimac, from which the city is named, is, excepting in flood-time, a very small stream, running over a shingly bed between the city and the Alameda; and the thickets of alders and other trees on its sides afford shelter to robbers. It was whilst bathing in this stream that Captain Lambert, R.N., was attacked and murdered, and it is quite possible that one or both of these men I mention might have been amongst his murderers, and also of the masked and hired assassins of Mr. Sullivan. The Alameda, which is deserted in the morning, excepting that negroes on the look-out suddenly make their appearance from behind the trees in an extraordinary manner, is crowded with carriages and promenaders in the afternoon. The "siamantá," or monoculating head-dress of the fair Limeñas, is now very seldom to be *seen.* A husband might pass his wife in the

street without recognizing her when thus attired, one eye only being uncovered. I understood that there is often a stipulation in marriage settlements that the siamanta should be discarded. European fashions are creeping into vogue, and French bonnets are usurping (and most disadvantageously) the place of the comb and graceful mantilla. A Frenchman and his daughters were performing Spanish dances at the opera with great success.

Mrs. B——, the widow of Dr. B——, an English physician who had practised for several years at Cusco, was good enough to show me a few curiosities collected by her late husband: amongst them was an Indian musical instrument of green sonorous stone, about a foot long and an inch and a half wide, flat-sided, pointed at both ends, and arched at the back, where it was about a quarter of an inch thick, whence it diminished to an edge like the blade of a knife. It much resembled the yu-stone of China in colour and appearance, but I do not believe it to have been of that material. In the middle of the back was a small hole, through which a piece of string was passed, and when suspended and struck by any hard substance, a singularly musical note was produced. Also a "gimmel" or double ring, or rather two rings, in the same piece of bone, used as a marriage ring by the Indians, the little finger of each

of the contracting parties being inserted in it. The Incas also used them, but they were of gold. In the collection also were two cubes of marble used as dice.

In October the thermometer stood generally at 71° in my room at noon. Misty mornings, with cloudy weather throughout the day, such as is usual at this season.

Chorillos, a large village and a bathing-place, required only a railroad to make it intensely fashionable. It is reached after a ride of a few miles amongst garden-walls and ruins, and then through a flat, open, and partially cultivated country. The houses are small, painted blue and red, with apparently a great want of comfortable arrangement; no trees, but a beautiful sea and Callao in the distance. The steeples of Lima* are to be seen about ten miles off, with the range of mountains bordering the plain behind the city. The ascent to some very lofty and barren hills overlooking the Pacific commences close to the town. The air on them is as delicious as it is healthy. The dreaminess of the ocean view was awakened by the large circling flocks of snow-white birds, who suddenly seemed to pause in their flight, and then simultaneously drop from a height of fifty

* San Martin entered Lima, July 2, 1821, and embarked for Chili, September 20, 1822. Bolivar entered Lima, September 1, 1823.

feet or more, as if dead, into the water, from which each of them, after a momentary submersion, is seen to rise with a small fish in its beak. The flight of the cormorants is scarcely inferior in elegance; a closely packed flock of them might constantly be seen, and its frequent change of figure in the air gave it the appearance in the distance of a skein of dark gossamer driving before the wind. General Castilla, the president, was playing at monté with two English gentlemen in the evening, and sitting like an ordinary guest, with his hat on, amongst the crowd in the public room at the inn. On returning from Chorillos the next morning, I noticed him quietly riding back into Lima, with two lancers only as escort.

I visited Pachacamac (a name of much the same meaning as Jagurnath—the Lord of the World) in company with two English clergymen; the Rev. Mr. D——, now at Valparaiso, who afterwards went with me to the Guano Islands, and the Rev. Mr. B——, since dead, and a couple of mounted policemen, whom the President was so good as to send in answer to our application. Mr. P——, whose hospitality I frequently enjoyed, most obligingly lent me an excellent horse for the occasion. After sleeping at Chorillos we rode along the coast, shooting a few wild ducks on a marsh in the way, and arrived late at the sugar hacienda at Lurin,

where we had an introduction. Its hospitable owner, Señor E——, did his best to make us comfortable. On the way the chief of our guard suddenly gave chase to a harmless-looking Chinaman quietly proceeding along the path to Lima. He suspected him to be a runaway from his employer; and he was right. After pretending to search in his bundle for his ticket-of-leave, he was compelled to be our travelling companion into Lurin. Our host told us that he and his hacienda, in common with many others, suffered terribly by the sudden manumission of the slaves. Those so lately his own came down with the revolutionary troops, and outdid them in committing all sorts of depredations upon the property of their late master.

After a long ride over a comparatively desert country on the coast south of Lima, we came suddenly upon a view of the plain of Lurin, and entered it, after crossing a small stream, by a neat bridge, strengthened by suspension chains. The plain itself seemed to be nearly one of verdure and cultivation, and to all appearance completely surrounded by a chain of mountains, excepting on the side open to the sea. Farm houses and haciendas, fruit-gardens and pasture-grounds were spread over it in rich confusion. Some two or three eminences were more conspicuous, having buildings upon them, one of *which is on* the hill known as Buona Vista.

Mr. Markham informs us that at Lurin was found a *quipu*, or counting-cord of the Incarial times, which weighed twelve pounds.* I have seen two or three small ones only.

The bare isolated hill on which are the ruins of the Temple of Pachacamac, built by the Inca Pachacutec, is visible long before the valley is neared. It rises at an angle of nearly 210° from each end of a base of about 500 yards, which is in fact the outermost of three rectangular walls from eight to ten feet high, that forming the summit being twelve feet, so that in general appearance it resembled some of the old buildings at Palenque. The building might have served the purpose of a temple, a palace, or a fortress, when necessary. The surface in and around it has been much disturbed, the whole space being occupied by heaps of ruins and hollows, indicative of numerous attempts at treasure-trove. It is well worth the visit. It is so situated as to be exposed all day to the blazing sun; and in the evening it receives the rays that stream across the open Pacific, to rest in full glory upon the disc of his golden image. So writes Byron of his lingering "o'er his own regions," in Greece; and Martund, the Temple of the Sun, in Kashmir, is placed in that part of the eastern extremity of the elevated plain which is last deserted by his light.

* Markham's "Peru," p. 166.

In the valley on the northern side of the hill there is an ancient Indian town, the graveyard thickly strewed with bones and skulls, or rather heads. The bodies seemed to be in a superior state of preservation; and had, I inferred, been buried in a recumbent, and not, as often, in a sitting posture. The quantity of hair was remarkable, to all appearance being undiminished, and in good preservation, and the original black invariably changed into a fine and very dark chesnut colour. An analysis of the soil, which seemed to be impregnated with ammonia, might produce some additions of value to the toilet table. Small golden ornaments are often found in the mouth; and hence the whole place had, of course, been ransacked.

In returning to Lima our guard suddenly stopped, and called our attention to a stationary horseman, who was evidently eyeing us from an open space on the distant slope to our right. "Es un ladrone," he remarked. I dismounted to look at him through my telescope. He was a negro, seemingly well mounted, armed, with numerous *impedimenta*, probably his bed, lasso, &c., distributed about his saddle, and at last, seeing that he was observed, he turned his horse, and rode slowly up the hill again.

About two miles north of Lima is the locality known as "Amancaes," or "the Lilies," a small *verdant plain*, in an amphitheatre of grass-

covered hills, over which was circling the largest condor I had yet seen. Mr. W—— was good enough to drive us there in his carriage. In June, July, and August it is the "paseo of paseos" to the Limeños. The view of the city over a foreground of green orchards is the more beautiful on account of the distance, which comprehends the island of San Lorenzo and the shipping in the port of Callao. On the Pacific side of the plain is a chapel, in honour of San Geronimo, and close to it is an image of the Virgin, in the hollow of a rock, and which, according to tradition, has made its appearance in a miraculous manner. In the chapel, masses are performed, by order of any family who wish to pass the day in jarana—that is, in enjoying themselves in dancing the zamacoeca, or other native dances, to the sound of a harp or guitar; and the time passes merrily by the aid of wine and chicha. I am indebted for these particulars to Mr. N——, than whose house there was none more hospitable in Lima.

The 24th of June (St. John's Day) is the opening of the paseos to Amancaes, it being then mid-winter, and the rainy season, such as it is. The hills, which are comparatively barren rocks for six or eight months in the year, are now verdant, and are soon yellow with the blossom of the amancaes. On this day also the best horses are paraded for sale or show. The cholos, someros, or peasants, who from June to Septem-

ber pasture their cattle on the hills, divide their profits at Amancaes on San Geronimo's Day, and treat themselves to their favourite national dishes, such as the guatia, which consists of mutton with ají, bitter oranges, pepper, onions, salt, and garlic. This mess is boiled for several hours until it is pronounced by the man of most approved taste to be fit for eating, upon which a rush is made to the pot, everyone helping himself, until ready for the pachamanca, which consists of beef, lamb, poultry, kid, &c. For the cooking of the last, a hole is dug in the ground and lined with stones; when heated, the fuel is withdrawn, the viands, well seasoned, put on the stones, and the whole well covered with clay. When nicely prepared it is spoken of as an excellent dish, such as no roast meat can equal. It somewhat resembles the "carne con cuero" of the pampas. Of this they eat heartily, washing it down with chicha, or beer made of various grains, until they fall asleep; and next morning separate to look after their cattle again.

I was at Lima when the news of the taking of Sevastopol arrived by the English steamer, which was dressed out gaily on the occasion. I should say that the sympathies of the natives were with the Russians—at all events with reference to England, as being a Protestant country. *Illuminations* in the evening at the houses of

the French and English, and others whom it concerned.

The English steamer from Panama for Valparaiso took us to the Chinchas or Guano Islands: their perceptibly ammoniated atmosphere was quite exhilarating after the fatigues of travel. From the distance of two or three miles, the cliffs and slopes of the islands appear to be rather formed of chalk, having the undulations of their summits covered with a reddish olive-coloured carpet. The long line of mountains on the coast, with little or no snow on them, is seen on the left of the approach from Lima. A little to the west of north is the opening of the valley of Chincha, whence the islands take their name; and opposite to them, in an easterly direction, the steeples of the town of Pisco, famous for producing some of the best wine in South America, are just discernible at a distance of about fourteen miles. There are three principal islands and some smaller ones. The middle island and that nearest the coast is the most frequented by ships, which are anchored by scores in the narrow channel between them. Where the guano has been cleared away, the denuded rock of granite appears. The islands seem to be mountain-tops, probably similar to the summit of the Andes, and to have been thrust upwards through the bed of the ocean, which in many places, where the rock is scooped

and worn smooth, has vindicated its power in conjunction with time. The islands are a penal settlement. The residence of the governor, who with his officers gave us a very hospitable reception, is at the north-west corner of the island, and close to it are barracks for the guard and the reed huts of the convicts, who collect the guano. It is carted in small trucks, drawn by mules, on iron tramways, to the edge of the cliff, where in several places there is a slide, down which they are overturned, and the contents received in the hold of the ship below. I heard of two men having slipped down the slide and being suffocated by the ammonia, before they could recover the shock of the fall. The masts of an ordinary merchantman rise to about a level with the top of the cliff,—the centre of the island being double that height. On the principal island, a mile in length, where the governor resides, the remaining mass of guano presented an abrupt grey side, about sixty feet above the plain. The convicts work in gangs. I once saw one of them severely beaten with ropes, by the others, for skulking whilst the overseer happened to be absent. There are Chinese labourers also, who have a village of their own and a joss-house, and they seemed happy enough.*

* *South Sea Slave Trade.*—Letters lately received from Tahiti mention that a Peruvian vessel is at present cruising in *the South Seas,* kidnapping the natives of the more secluded

The fertilizing effects of guano have been known to the Indians for ages; the sticks with which they broke it up are occasionally found. Their plan was to place a particle of it at the root of every stalk, which in planting rice would have been easy. Since the value of guano has been proved by the increased number of ships, &c., the sea-birds have comparatively deserted the islands, but may be seen in smaller numbers upon the surrounding rocks. The masses of them have migrated, it may be presumed, to the Gallipagos Islands, where they are so numerous that, in some places, the birds in the centre of the flocks hardly rise from their resting-place until those on the edge are fairly away.

The time occupied in the accumulation of the guano presents a question, after its kind, of great interest. That it has not been washed away as in other places, or that it has accumulated in any quantity at all, is owing to the absence of rains on the coast, where the exhaled mist is condensed before it rises high enough to be formed into clouds and raindrops. Another cause is the flatness of the surface of these rocks,

islands, to meet the demand for labour at the guano localities on the coast of Peru; and it appears that the same vessel, or a sister ship, a short time since, entrapped on board and carried off 160 natives from one of those islands. Such practices have become frequent of late years in the South Seas.—The *Times*, March 28, 1863.

and its being unaffected either by sand or dust. There will, for many years, as now, be a difficulty in making the calculation with reference to the past, as the amount of time occupied is inversely to the number of birds. When I was there, there was a mass of deposit on the principal island, which might be about three hundred yards long, with a varying width of one hundred yards, more or less, and averaging about twenty-five feet in thickness.* If, when the guano is all cleared away, and the islands probably sufficiently deserted to allow the birds to return, a certain area were watched as a guano-meter, a not far-off generation might arrive at a fair and interesting conclusion as to time occupied. The attraction to the birds is the great quantity of fish. Sea-lions are common. I saw one raise his head above water, and heard him roar quite as loudly as his terrestrial namesake. The localities of graveyards of animals who die a natural death have often been inquired into. The eggs of sea-birds, retaining their shape though changed into a pure guano (an ammoniated phosphate of lime), and the bodies and feathers of the birds, are frequently found in the

* Mr. Markham, in his "Peru," estimated the quantity left in 1861 at 9,538,735 tons, and thinks it will last twenty years longer. I venture to differ from so good an authority, and should not think it would last half that time; but I am *only speaking* from observation.

mass; and the Chinchas Islands can also dispose of the inquiry with reference to sea-lions. At the eastern end of the principal island the rock slopes into the sea, and in a sort of groove, running high up the bank, are the bones of sea-lions who creep up there to die. As most animals when moribund seek water, so in this case at least the amphibious animal seeks the land. I saw some eight or nine recognizable carcases amongst numerous bones, &c., in different stages of decomposition.

At Lima, December 1st and 2nd, the thermometer was 88° in the shade, and by open windows, at 3 P.M.

On the road to Callao from Lima three Indian mounds are seen on the left. The largest is about one hundred feet high; they contain bones, &c. The Protestant burying-ground, near Callao, is at a place known as La Bella Vista.

On a dull morning (November 26th) I left Callao in the English steamer for Guayaquil, distant 835 nautical miles, Panama being 1,547. I had thought of making my way to the Amazon, and at Lima had been introduced to the Roman Catholic Archbishop, about to proceed to the mission on the Ucayali, and had been kindly invited to join his suite—an arrangement very advantageous to a traveller—but eventually I preferred seeing the volcanoes and Quito and New Granada, &c.

We touched at Huacho and Casma, where the scenery reminded me of the coast of Norway; barren and varied rocks, white, red, and grey; extraordinary quantity of aquatic birds. Passed a small isolated rock, La Piedra Negra, where the *Mercedes*, a Peruvian ship of war, was lost with seven hundred men, having by most extraordinary ill-fortune drifted upon so small an object. Afterwards passed the Seal Island, so called from its shape; a high snowy peak behind the nearer range. Almost continual fine weather in these latitudes.

Passed Truxillo, where we should have landed had I accompanied the archbishop. In 1827 Lieutenant Maw passed that way to reach the Amazon, which he descended. Caxamarca, where Pizarro made the Inca prisoner, is to be reached from Truxillo. Rain falls once only in seven years on the plain of Sechura, south of Payta, where all the water is brought upon donkeys' backs, from the Rio Chira, a distance of seven leagues. Saw a large whale. A French whaling-captain on board obligingly enabled me to sketch nearly all the different species; their size, quality of oil, &c., and their habits were written by me also, at his dictation. He informed me that in these latitudes whales are seen chiefly at the full or at the changes of the moon.

Garcilasso says that the Indians of the coast

of Peru came from Mexico, by way of Panama, and that they were cruel and terrible Caribs.* Caribs are often alluded to in this direction as connected with the Muyscas of Bogota, and the Indians of Popayan. "An immense army," says Prescott, "was mustering at Quito, and 30,000 Caribs were coming to support it, in order to rescue Ahatualpa from the Spaniards."

Inland from Payta is Pinura, the capital of the province of Libertad. The river there is at times nearly dry, but the general warmth and dryness of the climate makes it a place of resort for invalids. I much regretted not to have known that Doña Manuela, the mistress of Bolivar, was still residing there, and that she considered herself entitled to a complimentary visit from travellers. She was, like the Liberador himself, partial to English people and English institutions. A gentleman informed me that she once handed him a large sum of money to make purchases for her; of course he undertook to do so, but asked how she ventured to trust him after such a short acquaintance. "Bastà que erès Ingles," was the complimentary answer. Her energy and determination are said to have been extraordinary. She would have been a heroine at Saragossa: in the East she would have been a Nur Jehan Begum. The story of

* Bollaert's "South America," p. 78.

her assisting the Liberador to escape by holding the door, and keeping his intended assassins at bay until he was enabled to let himself down from the window, is well known.

North of Payta, which was sacked by Anson, Nov. 24th, 1741, we touched at Pacasmayo, a station on sand, with barren mountains behind it, and afterwards steamed by Parina, the bare, not very lofty, and most westerly headland of South America. The Indians along the coast here are known as Pila Indians: they often occupy themselves as sailors and fishermen, and are a very independent race. At Tumbez, just before entering the Guayaquil river, the first Spaniards landed in 1526, and afterwards marched over the desert, by way of Motupe, to Caxamarca. It now begins the boundary line between Peru and the Ecuador. Col. Hall found the remains of an Incarial palace there. Mr. Ranking says that "the Moguls might have been driven across after the failure of their attack on Japan, and have landed at Santa Helena, north of the mouth of the Guayaquil river, having elephants on board."

Passed Santa Clara, or Dead Man's Island, as it is called by sailors, its upturned profile being not without considerable resemblance to that of a mummy on its back. More islands, and forest scenery on the banks. Passed Punà, an island *about eight* leagues long by four. Garcilasso

tells us that the Inca Huayna Capac was decoyed here by the reigning cazique, and that his followers were massacred, himself only escaping because he had accidentally returned to the mainland. Pizarro first passed from Tumbez to Punà, where he founded his first settlement in 1530. Father Valverde, who assisted at the capture of Ahatualpa, was killed there by the Indians, together with forty Spaniards who were taking refuge from the partizans of Almayro, after the assassination of Pizarro. The British chargé d'affaires, Walter Cope, Esq., had a country house on the island, and he always spoke of it as a residence in high terms, particularly of the fine sea-breeze to be inhaled there. The river still continues some two or three miles in width. Passed the village of San Borromeo. Dark-coloured trees rose over the other forest, looking as if they had been artificially formed in the likeness of birds and quadrupeds.

Guayaquil at length makes its appearance on the right bank, where the river is running north and south, and about three-quarters of a mile in width. The town has a long façade of wooden houses, built upon piles; in front of it a quay, and behind it, as approached, an apparent confusion of red roofs and cocoa-nut trees in straight rectangular streets. The town, whose patron saint is St. James, is protected from a descending flood by a low range of hills about 150 feet above

it, from which Chimborazo and the smoke of Cotopaxi may be seen to the north-east, and, to judge by the broad sweep of the upper stream, must help to form a noble background to a very fine view to the interior; but the horizon was clouded. A vast savannah extended on either bank, comparatively and curiously bare of grass and leaf. No rain was expected until Christmas, March and April being the rainy months. The bark of a willow called quillay is used for taking out stains, and the decoction of a plant called belday is used to wash a sore, charcoal being afterwards sprinkled over it. In the market were pineapples, oranges, and stringy but good flavoured mangoes, of which the seed had been originally brought from India. The oranges of Guayaquil become to all appearance ripe, and when the rain commences they become green again, and ripen regularly. Heard that the ladies of Guayaquil have a great horror of being seen in the streets in the daytime; so that they would hardly go even to be photographed, and that the artist must come to them.

At a place known as El Morro, about thirty hours' journey from Guayaquil, there is a celebrated hot-spring containing iodine. It had lately cured an old Frenchman of dropsy in about a week. It is impregnated also with bitumen, sold to line the inside of jars intended to contain *spirits.* The annual revenue accruing to the

Ecuador from the salt manufactory at Guayaquil is 180,000 dollars. Thermometer, 8 A.M., in shade, open window, 77°; at noon, 83°. Guayaquil will always remain of the greatest political consequence to the Ecuador, as being the principal point of attack by a foreign fleet, and the most advantageous acquisition by a revolutionary party; but detailed proofs of her importance would be of little interest to a general reader.*

December 6.—Started up the river; arrived at San Borondon, and waited there for the tide until noon next day. Good fruit and accommodation at the café; pretty creole waitress. Alligators very common, even amongst the boats, but they are not large. Ascended the river; never saw such large bamboos. Plantains, cocoanut trees, papaws, rich golden mangoes, jackfruit, and trumpet-trees; also picturesque houses built on piles, with tiled roofs and projecting eaves. Now and then an alligator on the bank. A long-tailed and winged hawk, like a boatswain bird, was common; white egrets. River less than a hundred yards wide, and smooth stream.

* Guayaquil has suffered much from epidemics, fires, and Dutch, French, and English pirates. Amongst the pirates were Clerk, David, Dampierre (1707), and Clipperton (1709). In 1589 a large proportion of the population died from a fever, supposed to have been brought in a ship from the Havannah. The real yellow fever appeared first in 1842, and in 1829 the Peruvian army there was almost destroyed by an epidemic.

Amongst other trees were the cassias, with their pods about a yard in length. The fruit known as the guava in England is properly the guyava. The guava is a four-sided pod, some five or six inches long, containing a sweet edible pulp round the beans. At Bottegas the river is not above seventy yards wide, but rather deep. Numerous boats and rafts. All the houses are built on props, as the town is under water during the rainy season, from February to May.

Thick forests all around. Oysters are brought up from Guayaquil. Opposite to the town is Elvira, a country house belonging to General Flores. Thermometer 90° in shade at noon.

Rode in the morning to see a cacao plantation; about a thousand trees in a space of a hundred and fifty yards square. Beautiful appearance of unripe cacao in layers white as snow. Huge plantain leaves about nine feet by three. Guava-trees, lemons, oranges, yucas, papaws, paltas, manna, and bread-fruit trees, whilst very large trees were conspicuous in the forest.

Started from Bottegas towards Quito; missed my way, and arrived very late at Playas. My dog had suddenly betrayed symptoms of great fear, and came to me for protection, occasionally giving a short, sharp growl at some animal which he scented in the forest at a place where there was no underwood. Probably a jaguar had *recently* crossed the track.

One of the mules, half drowned, did not come up until the next morning. Found that some one had tried to force open the iron rim of a waterproof bag, and had only succeeded in extracting a handkerchief. Slept in a hammock at Playas, in an upper story. People of the posada attentive and obliging; next day arrieros were very troublesome and dilatory. Confused accounts of distance; not worse than in many other places. Most travellers would, I should think, agree with me, that a peasant who gives a true account of way and distance must be intelligent above his fellows. An absence of this talent was, I thought, very remarkable amongst South Americans, distances often increasing most provokingly with every fresh information. It was a rare exception if one ever told me of his own accord, with clear explanations, that there were intersecting or divergent paths that might be mistaken, and the conventional "Quien sabe?" (who knows?) was often the only answer. This slovenly intelligence was, however, productive of some of the beautiful diminutives of the Spanish language, such as "un arribacito" (a very little higher), "un abajito" (a very little lower), "un allacito" (a very little farther that way), "derechito" (a very little to the right), "un dolorito" (a very little pain), "un poquillo" (a very little), "un poquissimo" (the smallest possible quantity),

"una nadita" (diminutive for "nada," nothing), "chiquito" (very small indeed), "el doctorito" (the little doctor), "mañanista" or "tempranita" (very early in the morning), "hace solecito" (there is a very little sunshine), "un tremblorcito" (a little earthquake), &c., &c.

Soon after leaving Playas, an ascent of two hours towards the plain of Quito commences. Beautiful forest scenery. Crowds of laden mules, donkeys, and llamas. Drank huarape, which I had not tasted since I quitted Oran.

Weather became temperate and cold after sunset. Passed and repassed a stream. Variety of birds: the red cardinal; a white bird, with a black streak from the bill to the back of the head; birds of rich brown colour with a white breast; turkey-buzzards; blue and yellow bird. Large blue butterfly, such as I had also seen in Mexico. Trumpet flowers (*Daturas*). Observed granite, with its surface, as usual, much disintegrated, at a height of between six or seven thousand feet; it was the lowest I saw in the actual mountains between Buenos Ayres and Carthagena. A cup of coffee, sweetened with molasses, at a small house by the track-side, was very acceptable, as I was thoroughly drenched. Saw some curious rough globular pieces of bark, called corosos, taken from the trunk of a tree called carde. Do not know whether from the *coroso palm* or not. They are said to collect

excellent water within them, and grow in a few weeks, but are of no further use.

Arrived at Gorge, containing three or four houses, and was glad to dry my wet clothes at the posada, such as it was, the sides being open to the roof. Numerous mules and donkeys, with their drivers, halting for the night. Weather much clouded, but from what I could see of the mountains in advance and the rolling forested hills up which we had marched, I am sure that the panorama is one of great extent and beauty.

Continued the ascent to the open and much-cultivated plain, large tracts of it being cleared for corn. Slept at a village, La Chima. In the morning a respectably-attired native, but wearing an apron, was lounging about my baggage, and I found afterwards he had robbed me of a tin travelling cup. I sketched a young deer, a female, not very large, eight or nine months old. They called it only the matarcan, or dog-killer, as the species usually escape from the native dogs. Head and legs greyish, body rufous, powerful and active. The Indian name "chonta-ruru," or "gama;" also "taruga" in Quichua. Numerous white roads on the plain, with villages and churches. Passed over a curious natural bridge of conglomerate before arriving at Gueranda, which is situated on a mound in a hollow, and entered it by the side of hedges that seemed to be almost formed of rose-bushes in full

bearing. Killed a scorpion in my room at the posada, which was dry and clean.

Next morning saw Chimborazo to the north-east for the first time, and unclouded, rising with an irregularly-rounded summit high over the boundary ridge of the plateau. Long ascent to it. The teunia (?) and other trees growing up to the edge of the plateau and then ceasing. Rock porphyritic. Numerous dead animals—mules, donkeys, &c.—attested the severity of the ascent. Condors glutting themselves. Country everywhere treeless and covered with grass. Noticed what I took to be two species of heath, one with very small white cruciform flower.* Lupins and thistles with flame-coloured blossom. The track continuing round the base of Chimborazo (the snows of Chimbo); the surrounding district with a village. The slope sweeps upwards gradually, and to all appearance presents no great difficulties to be overcome in the ascent until the region of glaciers begins, and these, when viewed through a telescope, appear mighty precipices of ice, which seem to bid defiance to an ascent to the summit, which, until the superior altitude of the Himalayas and many more of the Andes was ascertained, was considered to be the highest peak in the world. Humboldt gives an account of his ascent. Bolivar, the Liberador,

* Hediotys nitida.

ascended higher than Humboldt. Colonel Hall and Boussingault reached a still higher elevation, 19,660 feet, December 15 and 16, 1831;* and whilst I was in the country I saw a letter from a French gentleman, who, in company with, I think, an Englishman, had ascended to one, if not the highest, of the summits, and am very sorry to have forgotten their names. There is an extinct volcano, Calpi, at the base of Chimborazo, the great mountain being supposed to be one also. Near it is the hill known as Yaneuren, in which there is a cavern where the noise of a subterranean waterfall is heard.

The direct road to Quito turns to the northward; that to Riobamba, whither I was going, proceeds in a south-easterly direction. I wished to visit the volcano of Sungay here, next only to Cotopaxi in height and size. As I passed over the green and open plain it was incessantly puffing up a column of black smoke as large as that of an ordinary Potteries' chimney at half a mile off, though it was distant about sixty miles in a straight line. The track afterwards gradually descends into the partially cultivated plain. Too late to reach the village of San Juan, and passed the night under a precipice, a place usually occupied by those similarly belated.

* *Vide* "Annales de la Physique," 2nd series, vol. lviii. p. 190.

Proceeded over some beautiful downs at the foot of Chimborazo, and descended upon an isolated cherry-orchard with a small dwelling beside it. Passed a village called Hicalpa. The town of Riobamba appears several miles in advance, amidst a profusion of gardens and natural and artificial streams lined with numerous rows of poplars and willows, aiding much to beautify its pleasant environs. I rode at once to the Governor's house, and was very kindly received by him and his family. A good room was immediately assigned me, but as it had not been occupied for some time it was considered probable that the fleas had it all their own way in the matting on the floor. One of his sons-in-law, Colonel M——, immediately called in some half-dozen of the idlers in the street, made them sit down on the floor for about five minutes, and then let them go; and on my inquiring the reason, I was told that the fleas would in that time have quitted their homes on the floor, to be certainly carried off in their clothes.

I witnessed a bull-fight in the plaza. Chimborazo, viewed from this side, is much less conical in shape, becoming gorgeous in the setting sun, and occupying all the horizon to the westward. Numerous Indians had come up from the low plains; said they were Christianos. They *were rather* a short race, but wiry and active,

with faces adorned with red paint. One of them had the wildest face I ever saw, and wore an immense quantity of hair, which rather deserved to be called a mane, in consequence, I was informed by those who questioned him, of a love vow. Their countenances were by no means ferocious; and when asked how they would treat me as a traveller if I went amongst them, they said they would do their best for me, and give me fruit and potatoes to eat. Observed a fruit in the market new to me, resembling a sweet cucumber; I was told of others in the mountain; one brown and green, called hualicon, and a small black fruit, nemeso martino.

The bull-fight was rather an exhibition of bull-baiting; the gentlemen of the place, even the good Governor himself, taking part in the performance, and Indians with spears placing themselves in front of the bull, and exciting him to charge by cries of "Toro, toro!" One of them, a spectator and very tipsy, walked out a short distance into the arena, and whilst he stood there, gazing vacantly, the bull saw him, rushed at him from behind without his being aware of it, and actually seemed to throw himself off his legs for the purpose of bringing his whole weight and force to bear upon the Indian's back and loins whilst he was standing perfectly still. He fell instantly, doubled up, and I was

sure his back was broken. He lay motionless for fully a quarter of an hour, nobody coming to his assistance, when, to my utter astonishment, I saw him begin to exhibit signs of life; he began to crawl on all fours, and eventually he raised himself on his feet and moved slowly to the place he had quitted, luckily unperceived by the bull.

At Riobamba I had the pleasure of finding an English physician, Dr. T——, who had been much among the Indians; and at supper I met Mr. W——, a Belgian gentleman, who was making a short tour in these countries. The doctor told me he had discovered a yerba, or plant, of which an infusion in spirits was useful as an antidote to a snake-bite, and that a very bad and peculiar visceral disease, commencing with torpor and soon followed by death, unless taken in time, was common amongst the poorer classes in the country. An Indian does not always cohabit with his wife, but at intervals they remain together for four or five days, retiring to a temporary hut which she prepares. A married Indian frequently takes an emetic of some preparation of guayusa, and afterwards goes to bathe. In cases of adultery the husband has the right of wounding or even of killing his wife's paramour, and also of driving the head of his spear through her thigh. If he does not *wish to put* her to death, he inflicts the wound

on the outside; but if her death be his object, he divides the femoral artery. The Indian doctors have the reputation of being able to make a new tooth appear. It is said that the oorari poison used by the Indians is always prepared by the oldest woman of the tribe, but it is not true that she necessarily dies from the effects of the contact; and salt, so Dr. T—— informed me, will obviate the effect of the poison. I had heard in Bolivia that the Indians sometimes steal cattle, not by driving them away, but by trailing a thong of hide dipped in the juice of some plant of which the cattle are immoderately fond, and the scent of which they eagerly follow. Castor oil, I have already mentioned, is not considered as a good medicine, and is even given as a poison to a dog. Heard of Yuqui, a family of Indians celebrated for their talent for imitation. A governor sent for one of them, and cautioned him against forging gold ounces within his district, but gave him a foreign gold coin to imitate if he pleased. In a day or two the Yuqui brought back the coin and another with it, and on presenting them the governor is said to have chosen the forged coin as the original.

Rode out with some gentlemen to a quinta, or country house, and to see an old Indian lady, Doña Anselma, who was acknowledged to be the lineal descendant of the Incas. Her husband

and daughter were dead; she was very rich, and wished to marry an Indian who could claim to be of her house and lineage. Visited the cure of Naruquias, the village where she resided. The value of this cure, with fees, &c., was 1,200 to 1,500 dollars; a first-class funeral of a native Spaniard was worth twenty dollars; of an Indian, three dollars; of a Mestigo, six dollars. Another cure called Lieto, about three leagues from Riobamba, was valued at 3,000 dollars, in a population consisting of 2,000 Spaniards and 12,000 Indians.

At the village of Cacha, south-east of Riobamba, tradition says there was a palace of the Incas swallowed up by an earthquake. I had passed the old town of Riobamba on my way from Chimborazo; it lies west of the present town. It was destroyed, as is well known, in the year 1797, by the most terrible earthquake on record, and which, according to Humboldt, suddenly hurried between 30,000 and 40,000 people into eternity. I did not see the conical rocks which he says were there pushed up through the surface of the ground.* They may resemble, or be actually those seen and already mentioned by me. The Spaniards, observing

* A singular mass, called by the natives *moya*, in which carbon, crystals of angites, and siliceous shells of infusoria were intermingled, was pushed up in numerous small conical *eminences.*—*Cosmos*, vol. i. p. 201.

that the site was uninjured, commenced building the modern town. The site of Cusco, as already noticed, was probably chosen for the same reason; and no doubt the observed comparative immunity from these terrible calamities has influenced the selection of localities in very many instances. The old name was Tiupampa (the plain of sand), afterwards changed to Riobamba or Rayobamba (the plain of lightnings). Three men had been killed during a thunderstorm only a few days before my arrival.

My kind host, the Governor, made arrangements for me to visit the volcano of Sungay, with three or four trustworthy Indians as guides. One of the hired horses came from Punu, a village picturesquely situated on the opposite side of a ravine on the way, and in passing through it I was surprised by the local intendente demanding, in no very civil manner, to be paid for it beforehand; and whilst we were discussing the matter a crowd collected, and someone contrived to steal my shot-flask out of a pouch in which I carried it; but it was restored upon my sending back for it to the intendente, with a threat of complaint to the Governor at Riobamba, by whom he was afterwards summoned and reprimanded.

Slept at Cebados in a small convent. Chief of local police very civil. Thence to the hacienda of Ichabamba. Quantity of alluvium. Sungay

about nine leagues off in a straight line to the N.N.E. We were now fairly amongst the mountains, covered with long grass; trees in the ravines by the stream-sides; scenery reminded me of the long slopes on the lower ranges of the Himalayas, in the neighbourhood of Simla. Arrived at the last and very small village known as El Alto.

The path hence was very fatiguing, the horses floundering amongst rocks and great tussocks of coarse grass. The volcanic dust was constantly displaced by contact. It is exceedingly fine, of greyish-brown colour, and is distributed by the volcano for a distance of many miles around; its quantity is on the increase, whilst in the course of ages it has helped to form the deep mould of the soil, which covers the whole country, supporting everywhere a rank ground vegetation of long grass, small shrubs, and bushes. Its incessant renewal is attended with mischievous results to cattle, who not unfrequently die from the quantity of it they necessarily mix with their food, and which forms into three or four solid balls in their stomachs.

Slept next night in my tent on an open space. The path thence excessively fatiguing both to man and horses. Reached the top of a lofty ridge. Sungay came in view about ten miles *distant*—a bare cone, with the summit clouded

and emitting vast columns of smoke. I saw some deer—might have been taken for red deer, but with white tails. An Indian saw a jaguar, which he called a leoncito. Saw a grey eagle. Dust was like grit between the teeth. The guides picked a plant called architecta, which they said was useful as a fever medicine. First heard a noise from the mountain resembling that made by blasting rock. Long pendent grass and buttercups. Thermometer at noon (Dec. 24th), with clouds on the ridge, stood at 64°. The mist and cloud rapidly increased; eventually none of us could see the way, and I was obliged to turn back about four miles on the ridge, which was so narrow-edged in some places that a man could bestride it. A valley about a thousand feet deep lay in the direction of the volcano, with a very steep descent from the ridge, and another on the opposite side was less so; but there was no fear of slipping, in consequence of the great depth of the loosened soil, and the matted grass and herbage on the rock beneath it. I had my tent pitched there on a wider part. Starlight night, and intensely cold. Sungay was free from clouds, but roaring from time to time. I frequently rose to look at the volcano: first came the deep hollow roar; in three seconds a brilliant coronary glow of fire-light appeared at the summit, and in two seconds more burning masses were thrown up

high enough to fall like stars on the outside of the crater, their light dying out as they gradually cooled. The regularity of these appearances made me think that something like a rough calculation as to the depth at which the fire was situated might be made. One of these blazing masses, which could not have been less than a good-sized London house, was thrown about six diameters above the edge of the crater, and commenced rolling, but its angular figure soon rendered it stationary among its predecessors, and its size was diminished when the flame around it was extinguished. As far as I could judge, no lava issues from Sungay, on account of its height.

In the morning the mountain was partly clear, and I was enabled to get a sketch of a most desirably arranged foreground of intervening mountains leading up to Sungay, whose verdureless sides rose high over the horizon

Returned to El Alto, some seven or eight leagues from the ridge. On the way killed a bird, whose habits rather partook of those of a solitary snipe, though in general its plumage and flight are more like that of a woodcock. Its cry on rising is somewhat hoarser than a snipe's, and more of a whistle. It is found only at great elevations, from nine to twelve thousand feet or *more*, where there is feeding-ground with water, *amongst* rocks, trees, rushes, &c.

From El Alto to Ichabamba, six leagues. Long grass everywhere in the valley and on the mountain sides. Rock crumbling. A very small blackbird, and a magnificent species of swift—black, excepting a white ring round the neck. Lupins with blue blossom. A mimosa (?) covered with thorns, having a leaf like that of a willow, and a flame-coloured flower.*

Three leagues on to Cebados. Here, it being a fête-day, the Indian women were bringing their children to be caressed by the good monks, who were talking to me, and regaling me with an exceedingly good tea, made with the leaves of the huayusa, a plant well known in these countries, found in the Moñtanas de Miñas east of Cebados. I have also seen it, I believe, in a wet ditch near Bogota (?). Its taste, a strong bitter. Avoided Punu by returning through a very fatiguing and rocky ravine. Slept outside a hut, and arrived at Riobamba. On the way, first saw the long-tailed humming-bird.

December 28. — Fiesta de los Innocentes. Procession, with children dressed up with wings, and they walked about the streets afterwards,

* Some plants collected going to Sungay: — Species of valerian, geranium, and cerastium; *Ribes frigidum*; a bristly plant, found also on the top of Pichincha; *Margyrecarpus setosus*, a plant like heath; *Hedyotis nitida*; a species of *Lathyrus*; the *trinitaria* or *psorella*, so called from the shape of its leaf—called also *culen* by the Indians, and used as tea; a species of aster; ditto of *Baccharis*.

not a little proud of their dress. In the evening numbers of gentlemen proceeded from house to house, well disguised and masked, capering about the rooms, or dancing *pas seuls* in the circle of ladies who sat expecting them, causing great amusement by their wrong guesses as to who was who, &c.

Started for Quito by way of Ambato. Passed through the village of San Andreas, my Indian arriero driving very slowly, and purposely, as I afterwards found, in order to allow a native who joined us to steal my dog, and who had been calling him and noticing him throughout the day, in a way that made me suspicious. It became so dark whilst we were passing the open track over the shoulder of Chimborazo that I could hardly see my way, and missing the dog stopped and called him for several minutes. The baggage of one of the mules also wanted adjusting very conveniently. I could hear, but not see them, being nearly a hundred yards in advance of them; but at last the dog came up in such a state of excitement that I felt sure his liberty had been tampered with.

Arrived, after a most uncomfortable march, at Mocha, where, however, I contrived to get a tolerable room at ten o'clock at night. The dog-stealer separated from us the following morning. Thence to Ambato, where Ahatualpa *gained his* first victory over the forces of Huasca.

Wild cherry-trees were numerous. Cotopaxi came into distant view on the right of the track, across the open country. Ambato is so named after a distinguished Indian, and a family of that name still resides there. It has a manufacturing population of about 9,500. A great concourse of people from the adjoining districts meet at the market in the plaza on Sundays, to sell and buy bread, meat, native woollens, donkeys, pigs, fowls, &c. Women bare-headed, with orange-coloured petticoats and red shawls. The track descends upon the town from the open and rather flat country. On the summit there is a column, whence three great volcanoes are visible. Tunguragua bore 128° from N.; Cotopaxi, about N.E.; Chimborazo, 210° from N.; Riobamba, S.S.E.

Got quarters in a public room; missed a gold pin, stolen by one of the idlers who dropped in. Saw people playing at pelota, a sort of fives. Of course I had to leave the room whilst the town council sat, for an hour or two; and also whilst a grand jury of seven were discussing the question of a true bill of accusation. A single judge also sat there afterwards, and I was courteously requested to remain. An abogado, or counsel, came in and seemed to be pleading, but spoke as if by rote, with great rapidity; but he and the judge having no audience but myself, after having finished a formal harangue, he

bowed and went out, as having performed a duty, not waiting to hear a decision, and scarcely a remark.

I afterwards regretted not having left Riobamba by way of the volcano of Tunguragua, instead of Ambato. I should have passed near the extinct or fallen-in crater of Altar, or Capacurcu, a land "atoll," whose sides, split up into vast aiguilles and pinnacles, have a singularly wild and extraordinary appearance from Riobamba. The Indians have a tradition that it was formerly higher than Cotopaxi. Even the natives told me that the effect of light and shadow produced by the full moon upon it was very beautiful, and I could not doubt it. In advance of it, I should have visited the hot spring at the village of Baños, lying at the foot of the beautiful and most lofty-looking volcanic cone of Tunguragua, whose summit, shaken off by an earthquake or an eruption, lies in ruins upon the adjoining plain.

On the west of Baños is the junction of the Chambo from Riobamba, and the Patate from Ambato crossed by a bridge; and the united waters, now called the Pastasa, immediately afterwards descend with terrific violence through what appears to be an arch into a dark defile, from which they do not emerge for about two leagues, and finish their turbulent course by *leaping* over a precipice into the plains of

Canellos, so named from a species of cinnamon found wild there, and which is brought into Quito for sale by the Indians. The last eruption of ashes from Tunguragua was in 1842; the last earthquake was in 1797.

Between Riobamba and Baños, on the ridge forming a continuation of Tunguragua, is the mine of Condorasto, said to be of almost pure silver, but in an inaccessible position. The banks of the Rio Verde, which are reached in three days more, in an easterly direction, are said to be a paradise for climate and fertility; and in about another week the traveller arrives at a village on the lower plains on the banks of the Rio Pastasa.

Arrived at Latacunga, properly Latuncunga (the bare neck). Slight rain. Beautiful ride through the open valley. Quantity of alluvium with deep furrows, and a great quebrada, whose extent was visible across nearly all the way to Tunguragua. Latacunga is the capital of the province, and has a college supported by the State. The professor of chemistry told me he was commencing a series of experiments on Cotopaxi, in order to ascertain the quantity of ammonia in its snow, probably greater than elsewhere on account of the nitrogen and hydrogen gases escaping from the volcano. The bridge at Latacunga over the head-waters of the Pastasa, running towards the defile at Baños, was

swept away by the melted snow from Cotopaxi previously to the eruption in September, 1854, although at some twenty-three miles' distance. There had been no eruption since 1741, but the gradual melting of the snow had been observed two years before it broke out. Two other provinces, Leon and Esmeraldas, had lately been added to the seven of the Ecuador. The latter name would imply that emeralds were found there, but I heard from the best authority that none are known excepting at the Musa mines near Bogota. At a place called Mindo, on the way from Pichincha to Esmeraldas, it rains every morning, so that one particular stream is always impassable in the evening.

Started from Latacunga over an open undulating country, covered with low forest bushes and patches of cultivation, with Cotopaxi on the right, conspicuous amongst the distant mountain ranges. I had proceeded but a few miles when the mules, whose cargoes had been often readjusted, became so restive that the Indians said they must go back for others, and I was left alone. I observed an old woman reconnoitring from a distance, and afterwards she suddenly made her appearance in company with a powerful and suspicious-looking character, who paused and commenced a silent scrutiny of my luggage, which was all left on the track, and *then went* away again. The Indians at last

returned with nearly all the same mules, and I determined to go back to Latacunga. About a mile and a half on the way the mules again kicked the baggage off, and in the end I had to sit all night watching it with my gun on my knee. At last the only remaining Indian, wishing to be off, and thinking I was asleep, gradually came nearer, sat down close to me, peered up into my face from less than two feet distance, to be sure that I was asleep, and, as I thought, was about to take the gun by stealth. I suddenly tightened my grasp upon it, upon which he jumped up, dashed into the bushes, mounted one of the mules which were close by, and drove the others rapidly away at once. The short distance I had returned had, I believe, saved me from plunder by the old woman's friend, and soon after daylight I was enabled to send in word by a traveller to my host of the plight I was in. Some mules were sent out, and I returned for another day to the shelter of his roof.

Started again for the hacienda of San Augustin, at a place called Callo, where are the remains, so they are called, of an Inca's palace, which place however my muleteer tried to avoid, believing he knew a better one for his mules further on. The track lay over the end of the plain, blended in with the slope from Cotopaxi—a vast, open, rocky, and nearly treeless view, with occasional

verdure and pasturage for cattle; with here and there at intervals of miles a peasant's hut, and one of the highest volcanoes in the world (19,200 feet), occupying the entire horizon to the right, and towering into the clouds, which, so it happened, were perceptibly congregating from far and near, with an aspect of increasing gloom around the summit, in evident preparation for a magnificent storm. They rushed towards it one after the other, as if in obedience to a summons from the Plutonic powers beneath. It commenced to thunder and lighten, and the confusion and darkness increased with great rapidity of movement, caused by sudden contact with fiery blasts, and vast columns of heated smoke repeatedly gushing up from the crater. The whole scene was intensely interesting, and became in imagination Sinaic when the smoke and glare of the volcanic flame was hidden by the density of the black cloud, now whirling over the shoulders of the mountain as if in a state of distraction; the play of the electric fluid meanwhile being incessant, either on the rock itself, or more remarkable when discharged from one part of the clouds to another. It literally seemed to festoon the summit with lightning in Newtonian curves. I observed one flash in particular that imaged in brilliant light a zigzag course of more than a mile in length *amongst* the tempest of clouds and smoke.

When the storm was at its worst, the thunder never ceased for an instant; it resembled the sustained discharge of artillery, varied only in tone by the occasional and terrific roaring of the volcano itself, distinguishable by its hollow and abysmal sound, and communicating a perceptible vibration to the air. But the clouds came lower and spread themselves over the sky, the rain poured down in torrents, and the lightning began to play about the plain much nearer than was pleasant. I thought it better to ride slowly, and was not sorry when it was over, leaving a strong smell of ozone in the atmosphere. I met with a kind reception at the hacienda, and got well housed for the night.

The remains of the palace are two or three walls about six feet in height, and having the base, as have some of those at Cusco, wider than the top, built with stones closely fitted, indented niches, and with one door; one of the walls was about five yards only in length. They have been thatched over, and are now, in fact, sides to the farmyard, or rather its court. They may have some reference to the vicinity of Cotopaxi, but are hardly worth going out of the way to see. The summit was clear of clouds at night, and I was enabled to see it by the occasional glow which played over the crater. I found some good duck and snipe shooting close by: the farmer told me that they come across the moun-

tains from the head-waters of the Amazon in October, and return to them in May.

In the vicinity of the hacienda is a remarkable hill known as Loma de los Incas, and south from Cotopaxi. It rises at once like a dome, with a base of some 600 yards in length, from the plain, washed by a stream that descends from the regions of the volcano, and is covered with low wood and shrubs. Its position and regular shape would seem to strengthen the tradition that it was heaped up by command of the Incas. It might have been shaped by them, although I detected the solid igneous rock where it had been laid bare by the stream, whose further progress in a northerly direction it seems purposely situated to oppose; but I found no actual traces of human work. It seemed placed there by nature exactly in the way of the torrent of melted snow that descended from Cotopaxi previously to its breaking out in 1834, it having been quiescent for about one hundred years (since 1741), as if to give a new direction to the flood that carried away the bridge of Latacunga, as already mentioned.

Passed on to Machache, seven leagues from Quito. Beautiful park-like scenery and shooting ground on the way. On the top of the ascent of Tiopullo, where robbery has been frequent, found a wooden cross overhung with wreaths, *which* my muleteer stopped to kiss. It is

evidently the same that is introduced into Mr. Church's truthful and magnificent picture of the "Heart of the Andes," where the open country in the background is that intervening between Quito and Chillo. Fine clear and open view of Cotopaxi, which I stopped to sketch. Tiopullo is the watershed of this part of the plateau, about 12,000 feet high. The streams on the south side find their way to the Atlantic by the Amazon; on the north they flow to the Esmeraldas and the Pacific. The ridge itself connects the Cordilleras on the east and west. After the descent there is a great deal of cultivation—superior, I thought, to any I had yet seen. Saw a long-tailed humming-bird and yellow flowers like buttercups, with a very small leaf. Red coral flowers and rhododendrons.

The paved road of the Incas from Cusco to Quito was here in the ravines in a more perfect condition; previously I had only noticed it in patches. On approaching Quito, or more properly Quitu (the name of an old Inca), the mountain known as El Corazon ("the heart," from its shape), and another called, from its dark colour, La Viudita, or "the young widow," are seen on the left of the track, with Pichincha towering behind them.

Arrived at the city drenched with rain, and consigned myself at once to the hospitality of our Minister, Walter Cope, Esq., in whose

English and comfortable drawing-room there was every evening a friendly reception of notables, including the French and American Ministers, M. Villamoos and P. White, Esq., and the English officers of the Revolution,* Colonel Stacey

* The Ecuador can boast of as many revolutionary disturbances as any other country of South America, and the Government has generally to watch some co-existing and adverse interests.

Bolivia, formerly Alto Peru, was first separated from Peru, and after the death of Bolivar the northern country known as Columbia was divided into New Granada under General Santander, Venezuela under General Paez, and the Ecuador, previously known as the Provincia del Sud, made herself independent in 1831, under General Flores, who was elected President until 1834, during which time he suppressed an outbreak under Señor Roceafuerte, whom he took prisoner, and made President after two years. Flores may be said to have influenced the Government for twenty years, and is probably the cleverest man in the country. Bolivar, Sucre, and Flores were Venezuelans. The latter, when President of the Council under Roceafuerte, exclaimed against repudiation of the debt to England, indignantly reminding his hearers that the bones of the English were mixed with those of the patriots on the plains of Venezuela! Having been re-elected, but opposed, after having been victorious in two battles, by the supporters of a revolutionary movement commenced against him at Guayaquil, he retired and went to Europe, after having received by agreement a considerable sum of money. 1848 was the year of Flores's proposed expedition from the Thames, which was checked, and he came alone to Venezuela. The then President of Ecuador, who was suspected of favouring the return of Flores, was deposed, and afterwards sent out of the country by Urbina, who then commanded at Guayaquil, and was afterwards President. He soon had to oppose *an expedition* headed by Flores, and supported, it was said,

(who had been in twenty-seven battles) and Colonel Lannigan, Dr. Jamieson, the naturalist, and several other gentlemen, native and European. Thermometer in January varied between 63° and 68° in the shade at noon.

Quito is situated in the lowest part of the slopes from the volcano of Pichincha, and, as a matter of course, there is hardly a steeple or high public building that does not bear evidence, in the shape of a cracked wall, &c., to the danger of such a vicinity. Some of the roads are good enough for a carriage, but there is not one there. An open cultivated country in front stretches away to the north, south, and east; on the opposite side of the valley, over the lower ranges, rises the plateau of Cotopaxi, the vast snow-covered volcano of Antisana, and the isolated snowy peaks of Chinchalagua, Coyambe, and Cotacachi. There are eight convents, and five for women, in Quito. Nine steeples are to be counted from the terrace above the convent of San Francisco, which contains a quantity of bad pictures, and has a richly decorated roof. The sides of the streets are much occupied by convent and barrack walls. The market is well

by the Peruvian Government. A steamer in the service of Flores came over to Urbina's party, and Flores retired to Lima; but not being countenanced there, he retired to Chili, and afterwards resided at Lima. There I had the honour of being introduced to him. He is now Commander-in-Chief in the Ecuador under the President, Moreno.

stocked and swarming with Indians. One side of the principal plaza is occupied by the cathedral, whose interior is a mixture of gold and gloom; the roof supported by square pillars covered with red velvet, and the connecting arches painted blue and sprinkled with golden stars. On another side is the Cabildo, in which is the mint, the guard-house, the Governor's residence, and those of some of the principal inhabitants, whilst an arcade, or portales, under which are the best shops, is extended round three sides of the square.

La Democracia, one of the principal newspapers, takes its motto (the truth of which, practically, may be doubted) from Lamartine—"El Evangelio es democratico; el Christianismo, republicano!"

The city contains about 50,000 persons, who live by commercial and agricultural pursuits. I thought the Indians, who form two-thirds of the population, the most ill-favoured I had seen, excepting those at Cerro de Pasco. There are, as usual in these republics, several institutions with professorships for education, at the expense of the State. Olmeda, a poet of the Ecuador, has written a translation of Pope's "Essay on Man." A good artist presided over the School of Design, which was but ill supplied with models and prints as copies. He made a very *good painting* from my sketch of Sungay. There

is a public library, but I could hear of nothing of value in the way of manuscripts, &c. It contained several hundred volumes, a great proportion of which related to ecclesiastical subjects. At the Cabildo is shown an Indian crown of nearly pure gold, dug up in the vicinity of Cuenca. I heard that a bishop had once died in Quito, from inflammation consequent upon neglected nigua sores, and that any native bled in one arm was usually bled in the other, two days afterwards, to equalize the effect.

Señor Roceafuerte, who was President from 1835 to 1839, when a young attaché in Mexico, wrote a pamphlet, in which he talked of the "old rotten constitutions of Europe;" and in another he tried to prove, that by turning Protestant the country would be enabled to pay the national debt, in consequence of employing the great quantity of time lost by fête-days, &c., of which there are about fifty in the course of the year, besides Sundays. A holiday with the Indians usually occupies three days. It is made up of idleness and anticipation on the previous day, and by drunkenness and inability to work on the fête-day itself and the day following; and a large proportion of the year and its labours are thus rendered unproductive.

Señor Urbina was President when I was at Quito; but I was informed that neither he nor his ministers were often to be seen in society,

probably on account of party reasons. He continued, however, to retain the direction of affairs for three years after his term of office expired.*

The old Spanish titles connected with the Ecuador have some of the beauty which usually distinguishes them. Amongst others now extinct were El Marquesado de Miraflores, merged into that of San José, now lapsed, but represented by Señor Larrea; Montufar, Marquesado de Selvalegre; La Marquisada de Solanda; El Condado de Puno Rostro, with the family name of Mateo; El Marquesado de Valde Viejo; also El Marquesado de San Yonge, name Villesis; and El Condado de Gijon, of the same name. There are also the descendants of the Dukes of Gandia, with the name of Borja, in the Eucador. The name of Maldonado there is, I believe, also that of an old family in Spain.

The judges of the Supreme Court at Quito are appointed by the Government for a term of years, but are removable, as are also the provincial

* By a law of Columbia under Bolivar, all children of slaves born after 1824 were to be free at the age of twenty-five, having received some useful education to enable them to procure their own living, and in 1852 slavery was altogether abolished by Urbina. An Indian field-labourer earns about 3d. a day, but, being a sort of serf on old properties, he has a thousand square yards for his own use. A free labourer gets about 8d. a day; a pair of oxen may be hired on the same terms. A carpenter or tailor gets about 2s. a day. A fat ox is worth 22 dollars; a sheep, 1½ dollars; a fowl about 1s., and eggs eight for 4d.

judges, who are appointed by the Government from lists of those elected in their district. Seven constitute a jury in criminal cases; civil cases (*contenciosos*) are decided by the judges alone.

The environs of Quito are replete with localities and objects of interest, of which the volcano of Pichincha is, from its fearful vicinity, the most prominent.* I ascended it with Dr. Jamieson, who was good enough to accompany me. We rode over an intervening and wooded ridge, and slept at the Hacienda de la Concepcion, near the village of Lloa (10,500 feet), in order to make a better start in the morning, and return the next day. The ascent, though long, is not difficult; and mules can be ridden up the edge of the plateau on which the crater is situated. The path at first passes occasionally through beautiful forest—in which a large tree† was often conspicuous—and afterwards ascends the open slopes covered with brushwood and long grass, amongst which were white-currant bushes and large blue-blossomed lupins, fed upon by the tinamus, or large rails, of which I killed several on the way.

My companion was kind enough to prepare for me a number of the plants found upon the mountain.

* Its height, according to Boussingault, is 15,676 feet; Humboldt gives 15,976; and the French Academicians made it 15,606 feet—about the height of Mont Blanc.

† Osteomelis ferruginea.

It is generally thought best to dismount after having ascended to the plateau from which the crater rises, at a few miles distant. It is a wild and extensive region, deeply furrowed with irregular eminences, sometimes covered with snow, bare in some places, in others covered with grass and plants. In the way we had seen two specimen hunters; and saw a humming-bird knocked down at about twelve paces distant, by a pellet from a blow-pipe about eight feet long.* There is a species, well known as peculiar to Pichincha, of a brown colour generally, with a white tail, and I should think that its hardier habits might enable it to survive transportation to Europe better than any other. This diminutive bird may be seen beside the condor, each winging their way through the keen, cold air; the former drawing its sustenance from the insects in the Alpine flora of the mountain.

The last part of the ascent, like that to the crater of Vesuvius, is covered for a quarter of a mile with coarse scoriæ and cinders, and is the more fatiguing on account of the rarity of the atmosphere. At one place the thin rim of the crater enables a person to stand with one foot within and another without it. The thermometer within was at 47°; a few yards on the outside it stood at 39°. In some places the

* For Pichincha birds, also *vide* the "Edinburgh Philosophical Journal," vol. ii., July, No. 1.

interior wall is that of a precipice; in others the slope is very abrupt, and covered with loose cinders, through which innumerable rocks appear to be *in situ*, or firmly fixed by their own weight. The bottom was rather flat, with smoke and sulphurous vapour gusting up through the clouds, which impeded our clear view, but added to its grandeur when driving along the mighty precipice, which winds for about a quarter of a mile along its western edge. Humboldt says, "I have never seen nature under an aspect more grand and wonderful than in the view from the edge of the crater of Pichincha."*

March 6.—Returned to Quitō, and found the city illuminated, it being the anniversary of the commencement of the revolution at Guayaquil in 1845, which ended by the absence of General Flores and the accession of the present party to power.

On December 6, 1844, a shower of impalpable powder or volcanic dust descended from Pichincha, penetrating the most minute crevices: it continued falling for twenty-four hours. It burned when fire was applied to a small heap of it. A great earthquake did much damage in 1655, producing great want and misery. Scarcely a year passes without a shock, usually about August. La Merced had been struck twice in the previous

* "Cosmos," vol. i. p. 220.

year by lightning; and in the month of May, 1859, there was an earthquake that did a great deal of damage.

In these countries there is a tree which sheds a pernicious effluvia on any one who remains for any length of time under its lee-side. It is named caspa-caracha, "the itch-tree," but is not the same as the manchanillo, producing similar effects in Mexico. Opossums (chinchas) are not uncommon amongst the roofs of the city.

On the slopes of Pichincha, at a height equal to that of the Swiss Monte Rosa, was fought (in May, 1821) the battle between the Spaniards, under Ramirez, and the patriots, commanded by Sucre (afterwards Mareschal de Ayacucho), materially assisted by a company of Englishmen under Colonel Mackintosh, in which, the Spaniards being defeated, independence was secured to Quito.

In 1849, M. Wisse, a French engineer in the employment of the government of the Ecuador, and Señor Moreno, a native, descended into the crater of Pichincha. The terrified Indian guides left them, and spread a report in Quito that they were lost; but they ascended safely, after having remained there about twenty-four hours.

I occasionally strolled over the battle-field in search of game; and on one occasion had a very *narrow* escape from the unintentional charge of

one of the huge half-wild cattle whom we suddenly aroused, and which rushed by me in a state of great alarm down the narrow pathway in the thicket. I found woodcocks in the moist, rocky, and rushy ground on the more elevated parts of our beat, where the underwood was scanty.

About twelve miles from Quito, in the direction of Cotopaxi, is Chillo, the country residence of General Aguirre, the head of one of the principal families in the Ecuador. The city is left by the southern entrance, near which, in a Franciscan convent, is a portrait of Duns Scotus and of the founder Jodoco Riqui, named El Pariente, because he was said to have been a near relation of the Virgin.

The stream near the gate of the city is a favourite bathing resort of the fair Quiteñas, who are to be seen in groups at the different pools from the public pathway along the bank. I noticed there a euphorbia, a verbena, a species of foxglove, wild cherries, a milk plant, a kind of "long yellow broom," the native walnut, and a melastoma, which is very common in South America.

Also around Quito I noticed monimas, with a fruit like currants; the yellow blossom of the cassia-tree, barberries, and a plant which I believe to be the mistletoe; fuchsias, brambles, ferns; a tree with a bare stem and a funnel-

shaped flower, and a milky poisonous sap; a tree with a three-pointed leaf, which the Indians called pumamaki, "the lion's hand;" an hyberi-cum, which boiled with another plant called colca produces a good yellow dye; artemisia, said to drive away fleas; barbasco, whose leaves are pounded up and thrown into still water for the purpose of poisoning fish. There is also a small grasshopper which cries at sunrise, noon, and towards sunset; and Dr. Jamieson informed me that he had noticed a similar regularity in the notes of some of the birds in the country.

The whole ride is exceedingly picturesque; the country of uneven surface, wooded or open, meadowed, cultivated in pretty estancias or farms intersected by several streams, and surrounded by mountains of different elevation, exactly as it is depicted in the "Heart of the Andes;" the rocks generally porphyritic. Wild flowers and brilliant butterflies were numerous everywhere. An alcalde or large black hornet, with red wings, flew across my path; and the most valuable of all the humming-birds are those collected by the Indians on the lower plains, and brought into Quito for sale at from sixpence to a shilling or five shillings a skin.

The track, after a short ascent, begins to wind over the country to the eastward after a gradual *descent of* four miles along a paved road made

by the Jesuits to Chillo, which was once their property.

About a mile and a half before arriving at the house is a small isolated rock by the pathside, with a wooden cross upon it. It is known as "La Piedra del Diavolo;" and the peasants dislike passing it at night, as the devil is said to appear from behind it, and jumping up behind a benighted horseman compels him to ride round the stone until the morning. The house, long and low, with a raised balcony and an inner courtyard, is built across a narrow and verdant valley, down which a small stream descends (which afterwards joins the larger river of Chillo) from the plateau of Cotopaxi. A tree named fresno, a species of ash, with a magnificent display of yellow blossom, stood near the entrance. From behind the house there is a noble view of Pichincha rising beyond the valley of Cochabamba, which I had just crossed from Quito, the city itself being concealed by an intervening hill.

Some four hours' ride from Chillo is the hot spring known as La Cocha, from which the plateau is named, and a very conspicuous mountain which rises near it is remarkable for the extraordinary manner in which the lightning plays upon its probably metallic formation. In one of the terrific storms which occur most frequently in October and April, a native gentleman told

me that he once watched the surface of the mountain for about half an hour, and that in that time he counted not less than three hundred lightning strokes upon it. The tower of La Merced at Quito was twice struck by lightning in 1854, and a Franciscan friar was killed whilst at prayers, and in another church a priest was killed at the altar by lightning.

The stream is turned to account at Chillo, and a small factory or weaving establishment is supplied with moving power by means of a large water-wheel. The open-house hospitality of Chillo has been well known since the times of Humboldt, who resided here with the Marquis of Selvalegre, whose sister, Madame Aguirre, did the honours of the general's house in the most distinguished and ladylike manner.

I regret to have heard of the death of the old general, and I must ever remain grateful for the hospitable kindness received at Chillo. His son, Don Carlos, now Minister of Finance, had received the thanks of the Institut de France for his elaborate series of observations on the temperature of the elevated tambo, or farming station of Antisana, on the equator, and 4,060 mètres above the level of the sea, about equal to the height of the city of Potosi.

In the house at Chillo is an interesting three-*quarters* but life-size portrait of the great Prus-

sian, painted by a native artist in 1802, and recognisable as a likeness, particularly about the mouth. He had rather a small and bluish-grey eye, a straight nose, an oval countenance, and a quantity of chesnut-coloured hair, partly hanging over the high forehead, and clustered into a mass behind each ear. The rather long neck was encircled with a plain white stock, and the whole dress was white excepting the light-blue dress-coat uniform with high collar, wrists and facings of buff, his right hand resting on a quarto volume, on which were the words "Aphorismi, ex Physic. Chymplant."

A picture of the Crucifixion, a single figure, life-size, said to be by Titian, hangs in the chapel, where an Indian boy, a musical genius, used to play the organ. It appeared to me, at least, to be a very fine and original painting, but much in want of cleaning; and the general informed me that it was supposed to have been brought surreptitiously from Spain, and that a demand had been made by the Spanish Government for its restitution as a picture by Titian, which was not attended to in consequence of the War of Independence breaking out at the same time.*

* February 10th, the centigrade thermometer stood at 22° at noon in the shade and open balcony, and 4° higher in the sun. Rain falls chiefly in the invierno, or winter, at Quito, in February, April, and May; winds are frequent during the

From Chillo I once or twice walked about the low wooded and rocky country in search of game, but found the heat and fatigue oppressive, getting nothing but a few wild ducks; and though I have no doubt there are partridges and other winged game, they are not to be found without good dogs and a native who knows where to look for them. Found several fruits, some of which were edible—a red round fruit, on a tree like an arbutus; another, named sagalite, like a small black cherry, was sweet and good; colcas, resembling a medlar, rather soft and green; chanchio, black, like a Zante currant or grape, yields a deep purple juice, and has a small leaf like that of the mimosa, said to be poisonous; tolache, like a sloe, with a little leaf like a box-leaf. Dahlias with blue flowers, and lupins, very common. Heard that ground cleared of bamboos was the best for sugar-cane. Frequently partook of guavas, whose sweet silver pulp was very refreshing. Tasted a fruit called tsimbalo, somewhat resembling a gooseberry; also tacsu and chamburu, both resembling a small cucumber, considered to make capital ices. They are found in the woods about Quito, the latter being also a garden fruit,

summer, or verano, between June and November. In 1843 and 1856 (the comet years), there was no rain up to February, and I was told that the climate has changed much in the last *two years.*

with an agreeable scent like that of violets. Tunas or Indian figs; pepinas, ahnacates, caymito, and madrona, good fruits like plums; pallas pineapples, and pears. Potatoes are sown about the end of July; wheat about Christmas, to be ripe in August. From the banks of the Napo river is brought a fruit like a tuna—tint of an orange colour, with seeds which are highly medicinal; and from the wild forests on that river, and those on the Amazon, is brought (but very rarely) the uvas camaironeś. The general told me he had but once tasted them; that they were delicious, more resembling grapes in their appearance than any other fruit, but with longer stalks to each berry: perhaps they are merely wild grapes. Ishpingo, or the dried calyx of the flower of the cañelo, or wild cinnamon, is sold in the bazaar. It much resembles common cinnamon in taste.

Violent political opponents have been sometimes banished to the Napo, and forced to aid in the cultivation at the small settlement founded there in 1848 by the Government. It was once deserted by the Indians, and the governor was reduced to the last extremity by famine, but was relieved by two friendly Indians who arrived there, and were employed immediately as messengers to Quito.*

* I need not recount in detail the invasion of Quito by Benalcazar, who struck the Guayaquil river from Puerto Viejo,

The Napo is the principal river in the Ecuador, and will be of great importance, political and commercial. Rising at the back of Cotopaxi, it descends through a deep bed to the forests of the canton of Napo, a district partly inhabited by Christianized tribes. Its course is of 220 leagues; it is narrowed at its confluence with the Coca, but afterwards obtains a width of 500 yards, and 1,200 where it joins the Amazon,* and its clearer waters have sufficient volume to flow on uninterrupted by rapids to a junction with the great stream for upwards of 1,100 miles. It is navigable for steamers for about 140 leagues from its mouth, where there is a small island; and its stream being slow and placid, there are plenty of mosquitoes. The

and ascended thence probably by the route now common; or that by Alvarado, the hero of the leap in Mexico. Gonzalo Pizarro, who had superseded the former as governor of Quito, received his brother's commands to visit and report on the country to the eastward, and made his way to the Napo and descended it to the Amazon, where he was deserted by his chief officer, Orellana, to whom he had entrusted the command of the boat he had built for general purposes of the expedition. Orellana left his chief, and got safely to Europe after a successful descent of the Amazon, and spread a report upon which was founded the story of a tribe of Amazons and the name of "El Dorado."—*Vide* Robertson.

* From the city, after two days on horseback, the traveller arrives at the village of Papayta, thence it is necessary to *continue* the march on foot for fifteen days to an Indian village on the river, called Punta de Napo.

vegetation on its banks is profuse and gigantic; wild fruit and flowers are in abundance, and its banks swarm with the butterflies, birds, and wild animals of these meridians, including tortoises, whose eggs are very abundant. The Chaitiangi Indians inhabit its banks as far down as its junction with the Coca on the left bank; after that there are seven tribes on the banks, who are disposed to be friendly, and amongst them, on the left bank, are the Orejones, so named from their distending the lobe of the ear by means of inserted rings. When the Missiones del Marañon were organized, in 1656, one of them was assigned to the Napo, and the energy and perseverance of the Jesuits was rewarded by thirty-three stations and the friendship of 100,000 Indians. The Portuguese interfered and made slaves of them, under pretence of their being Caribs, or cannibals, and the missions were finally ruined at the time of the banishment of the Jesuits, in 1767.*

It may be said generally that the boundaries of Peru, the Brazils, and the Ecuador are not yet settled, although the mediation offered by England was accepted. The country is not sufficiently known. The physical difficulty arises mainly from the fact that the line runs across

* *Vide* "Geographica de la Republica del Ecuador," par el Doctor Manuel Villavicencio, who was once governor of the Napo. (New York, 1858).

and not down the course or direction of so many rivers and mountain-ridges. President Urbina decided to open for trade all the streams claimed by the Ecuador on the left bank of the Amazon; but Peru and the Brazils were opposed to such an arrangement, as calculated to induce an undesirable influx of North Americans.

I was informed that several Frenchmen, headed by a M. Levrand, had lately crossed to the Napo from Baños.

The road *viá* Cuenca is considered to be the most direct one from the coast of the Amazon, beginning by disembarking on the left, or northern ascending bank of the island of Punà, there being insufficient depth of water for ships on the opposite side. It is necessary to cross to the mainland in boats or canoes. January is the best month for mountain excursions from Quito.

At the celebrated Pongo de Manseriche the whole volume of the Amazon, which above it is, according to Condamine, 840 feet wide and 175 feet deep, rushes through a narrow gorge (formed by a convulsion and worn by the water) of about thirty yards in width and two leagues in length, between the village of Santiago, on the river of the same name and another called Borja. Condamine descended through it on a bolsa, or raft, tied with wild creepers, and in less than an hour he was at Borja, with the river *expanded* into a fresh-water sea, with no pebbles

or a beach for leagues below. Indians ascend it in canoes when the water is very low. It is remarkable that both the Amazon and the Parana should be suddenly contracted from extreme width to extreme narrowness.*

The river Santiago or Pante is navigable up to within fifteen leagues of Cuenca. There is a mountain path also to Borja, whence the navigation is open to the Atlantic.

A few leagues from Loja the sarsaparilla is so abundant that it is impossible to pass through it; and on the southern bank of the Santiago or Pante are the Mendez Indians, evidently mixed with Spanish blood. The Santiago is a beautiful river; and woods, resins, and balsams abound in its magnificent forests, inhabited by the "proud Jivaros," a tribe very cunning and jealous of their independence.†

When the Ecuador Land Company shall have made a really good start, so that arrangements that have been made shall not be permanently interfered with by climate, &c., there can be, I should think, little doubt of its ultimate prosperity. Of the four different places where land has been granted—at Cuenca, the Pastasa, Pailon, and Esmeraldas—the two latter are on the coast; and it must not be forgotten that the heat will much interfere with the labour of a white man.

* Condamine's "Travels;" Pinkerton's "Voyages."

† Villavicencio's "Ecuador," p. 86.

The Ecuador would, no doubt, derive great benefit from the developed exertions of the Land Company. The mere construction of roads to the port of Pailon on the west, and to the Napo on the east, would be a positive blessing to the country, and promises advantages which for a long time certainly will be much in excess of those which the Cusceños expect to derive from the navigation of the hitherto mysterious Purus.*

The political aspect of the Ecuador has of late improved, a better understanding having been established with Peru. San Roman, the actual president of that country, has adopted a more pacific policy towards the Ecuador, and has abandoned the menacing pretensions of his predecessor. Financially, I hear, matters do not look so well; the Government has been introducing a paper currency, making it a forced and legal tender, on which account it is less surprising that some demurs have taken place with reference to payment of interest on the Columbian debt, &c.

The Jesuits' road is continued for two leagues

* The Ecuador had issued land warrants to the amount of £560,000, in part payment of the arrears of interest on the conversion of their debt in 1855, and 4,500,000 acres, at 2s. 5d. the acre, were selected between Guayaquil and Cuenca.—*Vide* the Prospectus of the Ecuador Land Company, as detailed in *Bollaert's* "South America."

up the valley from Chillo. I more than once ascended it (much assisted by arrangements made for me by my host) in my way to Cotopaxi, which was visible everywhere. The scenery was very beautiful, opening out into verdant lawns and grass-covered ridges, of which the Jesuits well knew the value as grazing farms.

One day a large party sallied forth to a picnic, and we emerged from the woody recesses, upon which the path lay, upon as pretty a spot on the downs as ever was selected for the purpose. Not far off a dozen huge condors were sitting, with half-expanded wings, around the carcase of a dead horse, upon which the new-comers were regaling themselves. When gorged they can be easily killed with a stick.

On my way to Cotopaxi I slept at El Salto, a cottage belonging to a dependant of Chillo, and he and his pretty wife did their best to make me comfortable. I was awakened in the morning by my bed being rudely shaken; it was an earthquake, that had extended over the whole country and had destroyed two or three steeples at Riobamba. Shot woodcocks before breakfast on the adjoining hill.

On the main stream which descends from the plateau of Cotopaxi, and into which that of Chillo empties itself, there are several rapids and two fine waterfalls. That above the cottage, where a stream as large as an English trout stream

escapes from the tableland, is the finer of the two, the water descending more than 300 feet in one unbroken leap. I disturbed a deer in the brushwood on the edges of the precipice opposite to me, and wild ducks, woodcocks, and snipes on the moor. Noticed some mounds; doubtful whether they were artificial or not. Saw tree called umamachi, with a large long leaf; bromelias and cactus on the rocks. Romanillo plant; a small purple-flowered vaccinium, like a cranberry; a valerian; lupins; flannel-like leafed plant near the snow; also the greyish white frailijon, from its texture resembling a Merced friar's robe; pignachas, resembling fuchsias. Vast open plain with low shrubs, or with turf only, and well watered by rivulets. Cotopaxi ever in sight, and seemingly darting up volumes of smoke to the very heavens. At first a very few huts, where the men in charge of cattle and horse farms resided; afterwards all the pedrigal—as a rocky plain is usually termed in Spanish America—is as wild as nature left it, up to the foot of the volcano, which I reckoned to be about eight leagues from Quito. My guide took me to a place called Limpia Pongo (the clean or open pass) north of the volcano, a level, from which rise the first cliff-like and brushwood-covered slopes of the ascent, and which is used as a way downwards towards Latacunga. On the outer side of the level is a small lake surrounded by

tufts of white grass and rushes growing over them, and on which, after finishing a sketch, I procured a few of the numerous wild-fowl that had made it their home. A small sedgy stream which feeds the lake is one of the sources of the Chillo river, and flows into the Esmeraldas. I did not see any fish there, but they are known to breed in the cavities of the mountain sides, and to have been found ejected after the subsidence of an eruption. "It was by this singular phenomenon," says Humboldt, "that the inhabitants of the plains of Quito were made acquainted with the little fish they call preñadilla."*

The sides of Cotopaxi rise with general regularity at an angle of about 37°, but with rugged and precipitous sides much furrowed by ravines. About midway up there is snow and glacier in patches; and above, up to the very edge of the crater, all is bare and chaotic, and of a reddish chocolate colour. Before the eruption in September, 1854, of which the dissolving snows gave indications for two years previously, the summit was white with the deposit of nearly a century. The artist superintending the School of Design at Quito made a very good painting of it from a sketch I lent him, and gave me in return an oil-coloured painting of the eruption, as seen when it first broke out. The summit was a furnace,

* Pimelodes cyclopum ("Cosmos," vol. i. p. 222).

and a small quantity of melted matter ran over the side—an occurrence which, in so high a mountain, is extremely rare, but tends to confirm Humboldt in his opinion, that the ridges on the side of Antisana were originally formed by lava. The distant appearance of the eruption at night must have been magnificent in the extreme. The spectacle of one of the highest and perhaps the most furious volcanoes in the world* in full action, as seen from its very foot, was a very enviable one. It is about five times as high as Vesuvius, and several hundred feet higher than the summit of the latter would be if placed on that of the Peak of Teneriffe. The deep hollow roar which made the air vibrate, no vibration being perceptible on the water, was soon followed by a broad gust of the blackest smoke, driven almost instantaneously to the height of a mile or more, just such as would appear from a red fire covered suddenly with coal-dust. It raised itself in solid-looking, black, fantastic, and monstrous shapes through the now more quiescent smoke that had but lately preceded it; and in descending was caught by the in-rushing currents of cold air, presenting with unrivalled majesty an incessant change of rolling surface, on which were mountain-like elevations, alternating with awful-looking

* On the coast between Cobiga and Arica are four magnificent snowy peaks, one of which, Gualatieri, measured by Mr. *Pentland* (about 22,000 feet), is an active volcano.

precipices and vast, glowing, cavernous recesses, all to be gradually, though rapidly, dispersed, and perhaps to be mingled with the clouds and driven far away with them. To judge by the precipices, bared by the melting of the snow, as seen through a telescope, it would now be still more difficult of ascent than to the first pioneers;* but, eventually, those who succeeded them might profit successfully by their experience. It is observable that the smoke always takes a westerly direction, most probably because the edge of the crater is lower on the opposite side, and the rush of cold air affects it sooner. Humboldt has also remarked that the great volcanoes near the city of Mexico have both the craters inclined to the south-east. Boussingault estimates the snow-line of Cotopaxi at 15,646 feet.

Instead of returning to Chillo I quitted the track by which I had marched to Cotopaxi, and passed round, with the volcano on my right, to what is called the Valle Viciosa, at the back of it. I made in fact two distinct trips to the volcano. From El Salto to the Limpia Pongo

* It was on the 23rd of November, 1831, that M. Boussingault and Colonel Hall commenced the ascent of Cotopaxi. They found the turret of snow at a height of 4,800 mètres. M. Boussingault took his barometer up to a height of 5,720 mètres. He persevered by cutting steps in the snow in the ascent to the summit; but was prevented looking into the crater by being nearly stifled (*asphyxié*) by the sulphurous acid arising from the combustion of sulphur.

and back occupies a day; and it is a long day's march from El Salto to the Valle Viciosa. No scenic wildness could exceed that of the country I passed over. The plateau is furrowed and broken up with low, bare, rocky, and precipitous hills, with but little vegetation. There is a remarkable conical peak on one of the hills around, and three small streams have cut their way through banks forming low cliffs, laying bare large surfaces of trachyte, while the rest of the surface was covered with angular rocks and stones of all sizes. These are the head-waters of the Napo, which descend united through a wooded gorge to the south-east, which lies in the track over the Corderilla to the lower plains, and is expanded into a valley named Yana Urcu (Urcu signifies a mountain), in the "Cimaron," or wild-cattle country, having a narrow exit at the lower extremity, and which has been sometimes driven for game by parties from Quito; and jaguars, pumas, deer, bears, peccary, &c., are fired at as they attempt to escape at either end. Deer of a light grey colour were generally in sight, and I obtained two unsuccessful shots from a smooth bore. I saw condors, a grey eagle, hen harriers, white herons, and a few humming-birds; bandulias, a small blue bird, and a white-tailed thrush. I pitched my tent near two small mud huts, thatched with grey thistles, in the occupation of the Indian and his family in charge of sheep,

cattle, and horses belonging to the proprietor, Señor Velasco. There were ducks, plovers, &c., in the vicinity of the huts. Quito lay to the north-west, and Antisana to the northward. The huts were placed at a respectful distance from Cotopaxi, which presented nothing remarkable in its appearance, and lay due west of them, the the sun setting behind it. The Southern Cross, about 8 P.M., was about 15° over the horizon; and Orion was shining very brilliantly at a high elevation to the south-west.

I returned to Quito by descending into the main track by which I first entered from the southward. On the low ridge which divides the Valle Viciosa from the pedrigal or open plain between it and Chillo I noticed three plants that were very abundant.* From the opposite side of this ridge flow the head-waters of the Esmeraldas to the Pacific and those of the Napo to the Atlantic. Rabbits very similar to our own, excepting that they have no tail and do not burrow, were constantly darting with great speed across the path. Where they are very numerous they destroy the pasturage, and the Indians drive a large herd of cattle over them in order to get rid of them. A *toro bravo* in the path seemed disposed to charge, and I thought it advis-

* A baccharis, a lycopodium, and a hyperium,—so I was afterwards informed by Dr. Jamieson.

able to give him a wide berth. A few miles further on we passed an immense tract enclosed as a cattle-farm, the largest in the country, and afterwards descended into the road from Machache to Quito.

In the Alameda is a sundial, placed there by the Jesuits in 1776. They were tolerated in Quito for two or three years before Novoa was in power, and obtained a grant for their church and convent, of which, however, they never took possession. They were turned out of the Ecuador by Urbina, after he had been president for a year and a half. They never ostensibly interfered in politics, but gained influence by the superiority of their education and more polished manners with women at the confessional; in advantageous contrast with the "che mas? y che mas?" (what next?) of the ordinary priests.

Quito is celebrated for a beautiful pattern-work of cambric muslin—the pattern being picked out so as to resemble tambour-work; and handkerchiefs and petticoats of a thicker material are worked in this manner by Indians. Labour is cheap. Two-thirds of the population are Indians, and there is a still larger proportion of them at Latacunga. The making of a handkerchief occupies two or three months, a petticoat seven or eight; the former costs from ten to twelve dollars, *the latter* from twenty to thirty, but may be

made at a much higher price. Out of twenty dollars, the patrona or employer pockets the larger proportion. She supplies the materials, and deducts for the board of the workwomen in her house on a diet of locro—a broth of potatoes and cheese.

Dr. Jervis, an English physician at Cuenca, had recently died there, at the age of 105, from the consequences of a severe fall.

It is remarked of the lower order of Quiteños that they are happy so long as they have "los toros" (the bull-fights), queso (cheese), and la castella (a favourite dance). They are very fond of processions. On February 2, Candlemas Day, ordinary lights were not considered to be enough, but a large cone of white pasteboard, roughed and frosted over so as to represent snow, with a flame on the top, was placed on a gun-carriage and dragged along as a representation of Coto-paxi, attended by Indians dressed as giants and wild beasts. On the Sunday commencing the Holy Week, people were walking about in purple, imitating the dress of the bishops, and Indians strutted about with enormous pasteboard pillars, several feet high, as head-dresses, with forked sticks and side-ropes to keep them upright, and painted with twisted white, black, and red stripes, reminding one of the Russian verst-post. On the Tuesday another procession, with a large crucifix, and attendant angels carrying pincers to

pull out the nails from the cross. On Holy Thursday there was a general holiday, everybody in their best attire, and the archbishop washed the feet of twelve beggars. There was also a large procession of ladies and women of all characters, marshalled by priests, walking as *Almas santas* in high conical caps; with them a man with a huge Malchus's ear, and another carrying St. Peter's sword, attended by a crowd of aged and deformed people, supposed to be Jews going to see the Crucifixion. On Good Friday and Easter Day the ships at Guayaquil shape their yards like a St. Andrew's cross. I heard of a curious miracle at Chapapayas, on the Amazon. The Indians made an image resembling a priest who was much liked by them, but whose eyesight was affected. They inserted a thorn into each of the eyes of the image, which were daily loosened, and finally pulled out, the priest's eyes getting well at the same time.

The first bark seen by the Spaniards came from Loxa and the woods of Cuenca; and Mr. Cope informed me that he and other British Consuls had received instructions to collect and send home plants and seeds of the bark-trees. He had forwarded a box of *Chinchona Condaminea*. In passing through the country I had made numerous notes on the best kinds and best localities; but Mr. Markham, who in 1859 was *sent out* by the Secretary of State for India, has

most obligingly furnished me with the compendium in the note.*

* He says that the number of species of chinchona is not really known. The majority yield no quinine or other febrifugal alkaloid, and are therefore worthless in commerce, although often used for purposes of adulteration. There are ten or twelve kinds that are valuable :—

Chinchona succirubra, yielding the red bark of commerce, from the Ecuador; Chinchona calisaya (yellow bark), from Bolivia and Southern Peru; Chinchona Condaminea (crown bark), from Ecuador; Chinchona nitida, micantha, Peruviana (grey bark), from Northern Peru; and Chinchona lancifolia (Carthagena bark), from New Granada, Pasto, &c. All these have been introduced into India.

In the forests below Cusco are three worthless kinds :— rubescens, amygdelifolia, and scrobiculata.

The best kinds for yielding quinine are the succirubra, from the forests on the western slopes of Chimborazo, near Guacanda; and the calisaya, from Bolivia and Caravaya, in Southern Peru.

Mr. Markham landed at Islay in March, 1860, and passed inland to Puno, on the lake of Titicaca, and collected upwards of 500 plants of calisaya and micantha, in the forests of Caravaya, and having placed them in Wardian cases, shipped them off from Islay in June, 1860. Mr. Pritchett was employed by him to collect plants and seeds of the grey bark in Northern Peru; and Mr. Spruce, a resident botanist, collected the succirubra on the slopes of Chimborazo. Mr. Spruce ascended the Amazon and the Rio Negro to the confines of Venezuela; came back and explored part of the Hualaga, and then crossed the Amazon, and ascended the Pastasa to Baños and Quito in 1857; Mr. Cross sent specimens of the Condaminea from Loja in the Ecuador; and this large collection was sent to India in February, 1862, by the Peninsular and Oriental steamers. Some 2,000 plants were planted in Kew Gardens to fall back upon, if necessary, but the experiment in India has been quite successful. The plants were

I now continued my journey to the northward, Antisana and the other mountains towering over the snowy ranges to the right.* The large leathern envelopes which hang on each side of a mule, and are known as *maffrush* in Persia, are here called *mafresh*, the Arabic word having been imported by the Spaniards. Between Buenos Ayres and Quito I had not seen a single fir-tree. At about a league from the city the track rises over a hill in the open valley, and a

landed at Calicut, and taken at once to the Government Gardens at Ootacamund in the Nielgherries, and placed in the care of Mr. McIvor. Mr. Markham himself selected two sites for the planting; one 7,000 feet above the sea, and the other 5,000 feet; the former for the hardier species, Condaminea and lancifolia, and the latter elevation for the calisaya and succirubra. They are on the slopes of the hills, the soil rich and deep, but not very moist, requiring no manure; the rock a syenitic granite, with veins of basaltic rock, hornblende, and quartz. There are now upwards of 20,000 plants there, raised from seeds, cuttings, layers, and eyes, some of them also being the original plants brought from South America. Besides this principal plantation, plants have been sent to Darjheeling, and Khassya in Assam. There is also a thriving plantation in Ceylon and another in Jamaica, and lately they have been introduced into the Alpine Punjaub.

The wood of the bark-trees is not bitter; the leaves are bitter, but yield no quinine, and are not used. The correct spelling is *chin*chona, not, as usual, *cin*chona. Linnæus named the plant after the Countess of Chinchona, wife of the Viceroy of Peru in 1639, and one of the first persons cured by the use of the bark.

* Antisana was ascended by M. Boussingault, and on its *side is a* tambo, or station.

last view of two or three steeples is obtained from the summit. It then dips into a deep ravine upon the village of Huapulo, where there is a fine church. Passed a high bridge over the Machanja, and afterwards passed two more streams which unite at Huayabamba, five leagues from Quito. Thence over the open hills to Casabamba, where, having been provided with an order, I passed the night at the pretty hacienda. There had been a great deal of cultivation the whole distance, the patches of red and yellow quinoa harmonizing beautifully with the corn-lands; in the hedges were tuberoses and cancellaria. From the mirador or tower of the hacienda the view was beautiful and extensive. I could see Chillo in the far distance. Here I was on the equator. On this plain of Yuruqui are the pyramids at either end of the base-line measured by the French Academicians, Condamine, Bugner, and Godin, in 1745. I rode up to one, a small white pyramid. A long inscription in Latin, on a marble slab, in the wall of the college at Quito, records the results of their observations, which extended over three degrees of the equator; and amongst others, that the college itself is "minutes 13, seconds 18," south of the line. A measured mètre is engraved on the wall, with "Utinam sit universalis" underneath it. The name of Godin is romantically connected with this expedition, on account of the

marvellous adventures and escapes of Madame Godin in her lone descent of the Amazon, of which there is an account in Condamine's Travels.*

Passed on to some Indian huts; slept in one, where I could touch the roof as I lay. Country beautiful, but terribly cut up by ravines. The rains had made the paths in the deep soil so very slippery on the hill-sides that the travelling was very fatiguing, especially as the cargoes were constantly obliged to be readjusted. Had to break down one or two enclosures; the Indians objected, but on receiving a real they were pacified.

Next day descended in about four hours upon the hacienda of Gunchala, the town of Coimba being about a league from it. Large and fertile plain surrounded by mountains. The snowy peak of Coyambe, which is due south of Ibarra, was partly visible under clouds. Slept at the hacienda of Machola, surrounded by verdant meadows.

May 4.—Marching for Ibarra. The Indians think that obsidian (volcanic glass) is stone struck by lightning.

At Gunchala read an inscription stating, that on the 23rd December, 1854, there had been four terrible shocks of earthquake ("fuerte tremblo") in an hour, about half-past three, P.M.

* *Vide* "Pinkerton's Voyages."

From Gunchala towards San Pablo. Slept at the hacienda of the Campania. Noticed Indians on a hill apparently telegraphing with their arms to others at a distance. The rapidity with which any news of importance to them is signalled, so as to be known over the country, has been remarked upon. This spot had been well chosen, no doubt; for at sunset I saw the smoke of Cotopaxi and the snowy peak of Coyambe, the most northerly of the great Cordilleras, for the first time. The tribe of the Cotanes, resident in the vicinity, were amongst the most formidable enemies of the Spaniards and the missionaries. Cancellaria were profuse in the hedges, where there were any.

My guide showed me a plant he called Santa Maria: he peeled off the skin of the stalk, which was very soft, and told me that, when dried, it was an excellent covering for a wound, or might be used as tinder. Slept at hacienda of Señor Gomez de la Torre, absent on a mission to Bogota, but was hospitably received by his sister and brother-in-law. A good cow was here worth ten dollars.

Ibarra, an openly-built town, was commenced in 1602 by a Spaniard of the same name. Called on the governor, who was very obliging in his offers of assistance. Chamburu is the name of the fruit of a tree resembling the trumpet-tree. Found cherunioyas at Ibarra.

Walked two and a half miles to see the five mounds at Casanque, due south of Ibarra. Two only appear to have been opened,—one nearly perforated. A small copper-gilt plate had been found, and some models of canoes, formed of indurated clay, in a space of about an acre.

To the north-east of Ibarra is the small dull-looking lake of Yanacocha (the "lake of blood"), about half a mile long, and containing, it is said, no fish; a few wild fowl on it. It lies at the foot of the ridge and pass celebrated in the history of the Incas as the position occupied by the rival forces of Ahatualpa and Huascar during the war that raged between them when Pizarro and the Spaniards first landed. Canoes may have been used on the lake. The natives say that the absence of fish is owing to the quantity of blood which flowed into the water, and the mounds above mentioned were massed over the bodies of some of the chiefs who were killed there. The view from the summit embraces a fine prospect of the whole valley, and none of the approaching army could have escaped observation.

Arrived late at a sugar hacienda of San Vicente. About a hundred yards square of waste land might be obtained for twenty-five dollars; the same space, if cultivated, for a hundred dollars. No great difference in the price of good land throughout the Ecuador, excepting where there *is a lake* or river, which doubles or trebles its

value. Magnificent scarlet-flowered clematis in the hedges.

From San Vicente over the hill named Puntal. Conglomerate on the summit; small aloe in flower. Another hacienda about a league further on. Saw curious puff-balls on black ground, and funguses. A negro told me there was plenty of iron about there. A tea made from lentinea was good for a complaint in the chest. Negress cook at the hacienda refused to take anything for her trouble. Slept at Mita Redonda, by permission of the owner, Señor Gomez de la Torre. A change in scenery; the Sierra del Miradon rising on the right, generally like the Black Forest as seen from the Rhine, but with no firs. The trees were chiefly arayan, cordoncillo climbers, alba resina, pandala; plant resembling a small fern, Humboldt's willow, scoba or romarillo, red fuchsias, shrub having a flame-like flower, and moras or blackberries.

Passed on to Tulcan—large village on a hill; houses all thatched. Walked thence to see a natural bridge; people very civil. Fine bearded wheat growing; large quantity of aloe roots brought in to fatten pigs with.

Thence to Calavera (a hacienda in the midst of an open grass country, surrounded by a square of trees), after several times passing the boundary river of the Ecuador and New Granada. Found a custom-house at a small village: officer very civil.

May 15.—Terrible up-and-down march, and descent to Guachu. Few cottages; vast plunging slopes that reminded me of those of Chamba, in the Alpine Punjaub, the precipitous sides of the plateau of Pasto rising from the plain beyond, and giving an appearance of impregnability to this fine natural fortress. Small olive-coloured snake. My dog flushed a woodcock. Descent over extensive grass slopes to the rope bridge at Huaytara. Small shrub bearing fruit named huaydillas; rocks and trachyte; yellow locusts; tree like a laurel, with fruit like a medlar. Fine waterfall in view, on the opposite side on the right.

The bridge consisted of a very powerful rope, composed of six twists of bull's-hide, stretched at a height of forty-five feet across the river Patia, a rapid torrent about forty-five yards wide, with very steep sides, and about nine yards deep. On this were loose sliding hooks of rope and wood, in which the passenger is seated, and he is pulled across. The Indians take it very coolly. I saw one who wanted to cross, swarm over the bridge, as a sailor might have done; and another man swam after his hat, and contrived, I believe, to get out safely. A stone bridge was in course of construction; the abutments on which the swing-bridge was to rest were nearly completed with basaltic *blocks*, brought some five miles, after seven

months' work, and an expense of 4,000 dollars. The rock around is porphyritic. The passing was a tedious operation. Ascended to a hut called La Piedra: terribly bad road on the ascent to the summit of the plateau. Marriage-party: an Indian advanced and offered a drink of chicha, and would take nothing for his civility. Passed the village of Yamanguez.

Arrived at "El Fiel y Real Ciudad de Pasto," beautifully situated in an amphitheatre of the lower mountains, amongst which the volcano was rather conspicuous, covered with forest more resembling the scenery of the Brazils. Pasto twice rose against Columbia, in 1821-2, in favour of King Ferdinand VII., but was compelled to submit. A sort of bull-bait was going on near the entrance, the poor animal being fastened with a halter. Kindly received by the governor.

Rather large and openly-built town; the plaza, although not so fine, reminded me of that of Chuquisaca, as it slopes down towards the cathedral; not much to see.

May 23.—Thermometer, 62° Fahr. at 3 P.M., and water boiled at 200°, giving an approximate height of 6,250 feet, about 3,500 feet lower than Quito.

Rode with a medical friend of the governor to see a hot spring, in which people used to bathe occasionally; temperature 90°. A more interesting excursion was to a very large and

beautiful lake, simply called La Cocha, south-east of Pasto, embosomed amongst low mountains and primeval forests. Looked down upon it from an overhanging brow about three miles from the shore, on which were two or three wooden crosses. It was about a league in width; some ten or more miles of it only were visible as it curves away to the south-west, so that the other extremity cannot be seen. There is a large island about half a mile from the near edge. Heard the bark-hunters at work in the forest beneath. Mr. Markham informs me that the bark there is the lancifolia, a very valuable species, called tunita by the natives. The terribly bad bridle-path frequently used had been worn so deep, and was so narrow, that we sometimes rode underneath the overhanging roots. Tree-ferns were in abundance, and in some places the woods were pink with blossoms of broom.

The Pastusan society is much the same as in all the large towns. Dropsy is a very common disease, and I noticed there an immense proportion of vegetable food was eaten. The inhabitants were busy about the election of the President, which was coming on in July. General Ovando, in one of the innumerable disturbances in these countries, once drove the President and his army into such a position in *Pasto* that they could not have escaped from

him, had not General Flores come down with a force from Quito and forced Ovando to retreat. The governor, who often talked politics, was anxious about the recent affair with the American passengers at Panama, and as to what the Americans would do. The Liberator himself was once pursued by cavalry near the foot of the volcano of Pasto, and escaped by meeting an officer who lent him his horse.

In order to ascend the volcano, I rode to a hacienda, about two miles from the city, where I hired a guide; but about a mile further was compelled to dismount and proceed on foot through the woods, which were of the same character as those on Pichincha, the romanillo being the highest tree. The ground was then covered with a dwarf green tree much like the juniper, which I had noticed before on Cotopaxi. Ascent succeeded ascent in a most fatiguing manner. Noticed a toad with an olive-coloured back, but of a scarlet colour underneath. Saw what I thought was a large eagle where condors were common. Higher up, a miniature forest of the whitish rough plant already mentioned as the frailejon. A wax exudes from it which the natives put into their ears for deafness. Flushed a woodcock. Afterwards there was nothing on the sod but mosses; basalt cropping out. Arrived at the crater, into which I looked, close to some overhanging and jagged rocks

containing garnets; but a thick mist filled the hollow and rolled over its sides and edges, and though the sun was shining brightly at the time, I could only catch an occasional glimpse, which showed me that it was not nearly so large as that of Pichincha.

Average temperature, May 26th, 62° Fahr. The mountain-ridge runs east and west, and the crater is on the west side of it. I regret that I had no barometer nor apparatus for boiling water.

Humboldt says that "the Pastusans described to us their astonishment when, on February 4, 1797, they observed the smoke disappear in an instant, whilst no shock was felt; at that very moment, sixty-five leagues southward, the town of Riobamba was overthrown by the most terrible earthquake on record."* I believe in a communication between all these volcanoes, although suspended for many years by the falling in of disintegrated masses, cinders, &c.

Left Pasto for Popayan, after great difficulty in procuring trustworthy muleteers, in which, however, the governor gave me aid and kindly advanced me money, which I was in want of until I reached Popayan. Ascended a long hill on leaving Pasto. Saw the muleteer pick black

* "Travels," vol. i. p. 480.

bunches of a fruit somewhat resembling currants; told me the juice was good ink, "por escribir cartas," and could not be easily rubbed out. Beautiful descent over park-like slopes to a hut at Sacribamba (?), where the Indian woman astonished me by offering, in the morning, to return me one of two reals I gave her for having slept there and for her having cooked for me and the muleteers. Two ways from Pasto meet near a hacienda here. Met two men riding, one a priest reading aloud. Path continued over mountain-downs more than usually verdant, but afterwards furrowed by ravines. The branches of the trees much covered with "old man's beard," the trunks with moss; they were bent with the power of the winds. Long green slopes descending to the river; ravines showing diluvial deposit. Flock of large black swifts crossed the track.* Mica, slate, and feldspar cropping out, and trachyte. Beautiful hacienda of Orteja; River Huaramba running westerly; fruit like a quince — poisonous; flock of large black cranes. A tight rope forms the bridge here on a slope to the lower and opposite bank, so that the traveller and his baggage descend with rapidity. Saw water-spiders on the small boulders at the edge of the stream, such as I had seen nowhere but on the Vermejo. Village,

* Cypselus montivagus, or Andepolus (D'Orbigny).

about an hour from the bridge. Wild guayava-trees; plantains; cattle on the slopes. Long but beautiful ascent from Pueblo to Barnejos amongst thickets of forest, and about a league from the summit.

The environs of La Venta which I was approaching used to be famous for robberies, and no better place could be found for that purpose. After emerging from the forest, and descending from the rugged heights which are covered with it, I observed a rock remarkable on account of its position, but more so as having been named La Capilla. On June 4, 1830, it witnessed the murder of General Sucre, the victor of Ayacucho, whilst on his way to Quito for political purposes, by a band of eleven hired assassins, said by some to have been deserters, by others Peruvians. General Ovando, of New Granada, was suspected as the instigator, but so were many others, and even the States of Columbia generally were supposed by some to be implicated. Ovando wrote a confidential letter to a distinguished officer by way of explaining and clearing himself in his opinion, and, it was said, received an answer accusing him as an accomplice, which was answered by an attempt to implicate the accuser; but the history of these republics is full of such complications.

To the northward a black sierra was rising *into* the clouds; and from the elevated Sierra

Gorda to the westward, the Pacific, so I was informed, could be seen on a clear day. Noticed a magnificent millepede caterpillar seven inches long, barred with black and yellow, and moving on innumerable feet. Saw two hawks attacking an eagle under his wings. In Persia a small hawk is trained to tire an eagle down by doing so.

The village of La Venta is prettily situated on a green, with a chapel, an alcalde, and a doctor who kindly gave me a room for the night. Some of the inhabitants reposed in swings made of cowhide instead of nets. The governor showed me some ore which he thought contained silver, and some precious garnets from the river of Mayo. Bark was procurable, but scarce. Saw for the first time a young wild pava, size of a hen pheasant, head and back olive brown, eye ruby coloured in an elongated spot of sky-blue, flame-coloured underneath, and red legs.

Next morning still warm and cloudy. Rode to see some salt-springs the governor of La Venta told me of; I think there were fourteen, but a common stream mingles its waters with them. They are much frequented by cattle. Walking along the edge, where there were some large rocks, a large tarantula rushed with great rapidity from the under edge of one of the rocks in a state of great alarm. They do not make a web, but are occasionally to be seen on bare rocks

near water, where they watch for flies and other insects. Close to the springs were the guayava and guava-trees side by side.

The surface of the country round La Venta was peculiar—an open rolling plain covered with grass and stones, but remarkable on account of the ruin-like rocks which, as in Peru, cropped out in different parts of it. A quadrada or square of uncultivated land, with sides a hundred yards long, is worth about ten dollars, and a league is valued at the same rate.

Continued northward from La Venta. Tree like an ash, with yellow blossoms. Coffee plantations and orange groves. Yellow fruits on a low bush, with a white prickly leaf, called rogolga, of no known use, and said to be poisonous. Tree with large broad green ribbed leaf; fruit eatable, somewhat like a fig. Slept at a hut in a low green valley called, I think, Huagete. Thence to Magaras, where we began to descend the mountain into the very rich and beautiful country of Patio. The heat became very great; I had been previously warned against the region as being very productive of fever. In the thickets I saw Brazil wood; wild lemon trees; fruit resembling cherimoyas, but with a prickly outside. Another resembling an elongated onion in shape, of which the outer peel is eaten. Granadillas; aloes; sandia, a ground fruit; large-leaved *plant* like a nasturtium. Bandulias flying about,

and a black bird with a long forked tail. Heard that it is considered rather dangerous for a stranger to eat guernavanas and mangoes in Patio.

At San Marcos found a negro family and clean new building of open fretwork, in which I slept. Good melons there. Had long been suspicious of my muleteers—one a negro, and both ill-looking fellows—and observed them lie down where they could keep their eyes on me. We were in a country where there were many negroes. Watched them, lying down in my clothes for the night. In the morning found two or three scorpions on my shooting-jacket, which I have no doubt they put there purposely for the chance of disabling me. The natives crush a scorpion, and apply it as a cure for the sting of one.

Marched on, and in about a league arrived at "Dos Rios," a most picturesque meeting of two streams,—the Mamacon and the head-waters of the Patio river; easily forded. Had seen some mounted farmers going to look for deer with numerous curs; heard them running one in the forest on the right at the ford.

Had been told of a large negro village of the same name (Patio), and thought it prudent to pass through it without stopping. The single street was full of negroes, it being Sunday, and they seemed disposed to be impertinent; but

nothing unpleasant occurred. The frequency of locusts in this country was most remarkable. They were often very numerous on the path: when small and young they were of a dull brownish colour; when older and larger they were greenish, with yellow stripes. In one place I suddenly came upon a swarm of them, and an extraordinary sight it was. For about fifty yards the forest path was covered with them in layers, seemingly formed by the gradual spreading out of three large heaps, looking as if they had been each turned out of a hamper. They had, it appeared to me, emerged from their earthy cradles in the vicinity, and were instinctively congregating, waiting until they were told enough for a flight, which the natives say is when they are about three months old.

Slept at El Gordo, where I was hospitably received by the curé; the old negress cooked for me the bandulia which I had shot—rather tough eating. Proceeded, soon passing El Poso—two or three huts. Doctored a poor woman with Brandreth's pills. Same aspect of scenery—steep hills with gable ends, indicating the cross action of currents; the richest verdure everywhere; downs and clear streams. Cloudy, but very hot.

Arrived, much fatigued, at San Francisco—three or four huts only. Peasant woman rejoicing in the name of Celadine. About eight miles *further* were "Las Arboles;" less habitation than

I had seen anywhere, excepting in some parts in Bolivia and the Argentine Republic. Got some milk in the morning at San Francisco, and saw some boys balancing coroso berries in the air with their breath, in the same manner as an ivory ball is supported on the top of a jet of water.

June 3.—From San Francisco to Urquita, standing at the summit of an ascent hollowed out in the forest. Very pretty place, with village-green and chapel. Black and bright yellow birds like orioles, called judillos. Long march; tracks very bad and wet with rain. Asked the priest for lodging; very sorry and kind, but had no room. Another, however, gave me one. Had a collection of centipedes, scorpions, tarantulas, &c., on the wall. Coral snakes, he told me, were common; said a bit of aji (capsicum) was a good application for the sting of the scorpion, and that the bite of the large tarantula was very dangerous, producing violent pain in the head and body, and often terminating fatally, as in the case of a woman he mentioned, in about twenty-four hours, and said he knew of no cure: the animal itself, he added, was harmless enough unless touched.

No great amount of cascarilla or bark is found in these forests, or, at all events, the young men were more fond of gambling and the cock-pit than of hunting for it.

Forced to halt for the day, one of the mules being lame. The valley of Patio very unhealthy; Humboldt avoided it: begins at Mercadores and ends at Urquita. Next morning the thermometer at 8 A.M. was at 72°; weather cloudy. One arreiro got tipsy, but pressed on with one only to Tres Cruces. Pretty half-Indian peasant girl. Thence to Timbio, one league further on. Village and church in the woods; then the rich and beautiful verdant valley of Popayan came in view from the summit of an ascent; the city itself hidden by intervening slopes, though only about three leagues off. Overtook mules laden with bark from Arvela, one day's march into the mountains from Patio. Each mule carried four neat, solid, square packages of hide of five arrobas (125 lb. each), being 500 lb. for each mule. The huts and houses were very neat and were whitewashed.

June 9.—At Popayan. Soon obtained lodgings with my letter of introduction, but found them very unhealthy, being at the lowest part of the town, near the brook. The greatest amount of rain falls in March and April. January and May are the best months for crossing the formidable Paramo or elevated pass to the northward. Thermometer stood at 66° in the shade at noon.

Popayan was the name of the chief or cazique of the country on the arrival of the Spaniards.

Velasco thinks that the then inhabitants were descendants of the Caribs, because they were cannibals.*

From the chapel of Belem there is a fine view of the city, with its plaza, its straight streets at right angles as usual, white houses, and dark, dull purplish roofs, altogether very picturesque, in the midst of a meadowed plain, to all appearance of unsurpassed richness, lying between two green mountain-ranges. Its edges were diversified with hollows, shaped as if they had been chipped out of the hills which bounded them. Over the mountains to the northward there is a communication with the valley of the Cauca, whose position is distinguishable in the horizon by two or three of the mountain-tops that rise around it. The volcano of Popayan lay to the eastward, and the Paramo, or elevated down country over which lay the road to Bogota, was visible on the right of the plain. The Cauca river rises in the mountains to the southward, and flows to the northward of the city, being already a full stream.

When walking on a hill in the vicinity, the large swifts of the country darted by, almost touching me, with a velocity that produced a ringing sound from their stiffened and blade-like wings not less than fourteen inches wide. Saw boys playing at marbles with the fruit of the

* Bollaert's "South America."

coroso-palm. One day found my dog in my room with a swelled throat, and suspected that he had been stung by a large scorpion which he had killed on my bed during my absence.

The governor was absent at a congress at Bogota, but his deputy was very obliging, and sent me some recent papers to read, and assisted me with an introduction in my way to the volcano. Humboldt says the South Americans make a distinction between a *volcan de fuego* and a *volcan de nieve*—one that is covered with snow, and is not active, or only smokes a little. That of Popayan is covered with mud.

Passed the bridge over the Cauca about a league from the city. Pretty scenery. Two birds with blue backs, black heads, throat and breast dusky, but with long grey tails, like jays in shape. Flocks of black pigeons. The largest tree was the robles, or oak of the country. Saw the alba racina, with a long indented leaf, and small yellow seeds in bunches; good for sores in horses, and said to purify their blood. At Popayan I also heard of a plant used, I forget how, to prevent niguas from penetrating the skin. A paved path winds up the right bank of the Cauca, which flows a thousand feet beneath. The colour of the ochreous earth makes it visible for a long distance ahead. From the top of the bank there is a plain of a mile and a half, well *cultivated*; and there, amidst a confusion of

ravines, precipices, and waterfalls, is situated the pretty village of Puraseh, of superior neatness, owing to its having been fixed upon as the starting-point of a new road to the north, and also to the supervising care of the padre, at whose house I was kindly received, and supped and slept comfortably. His elderly lady mother was proud of having seen Humboldt when she was about fourteen years of age, when he was on his way to the volcano.

Thermometer at 8 A.M. 63°, June 14th; and water boiled at Puraseh in the open air at 199°, giving about 6,786 feet as the approximate height.

Proceeded thence with a fresh mule and a guide. Beautiful ride through low woods, pink with the blossom of, I believe, a melastoma. Wild heartsease flowers by the path-side. In about two leagues further, emerged on a paramo or elevated down of long grass. The summit became visible after winding round a hill, and at the same time a jet of steam, issuing like white smoke from the side of the mountain, is noticeable from a great distance in different directions. All around had a very desolate aspect; the entire mountain in advance, excepting on its porphyritic precipices, was covered with hard mud, with large and small rocks here and there rising through it. One solitary condor was circling over it. The slippery nature of

the steep ground made the ascent exceedingly fatiguing, and a strong wind made it still more so; and, when there, I was again disappointed by the crater being covered with clouds. I was obliged to turn my head to avoid being stifled with the sulphurous vapours. There is nothing very picturesque in the crater itself, as far as I could judge in the driving mist. The eruption must have either formed, or more likely have reopened, it, according to the native account, which says that previously it was dome-shaped and covered with snow. A small quantity only of snow in sight, but the ridge is covered with it for a league. At a guess, I should only think it about 8,000 feet above Popayan.

In descending, went to examine the Volcan de Paramo, as it is called, a jet of hot sulphurous steam issuing from the side of a rock through a hole occupying a space of not quite a square yard. It resembled the rush of steam from a large boiler, with, however, less noise. It raised the thermometer to 198°. There is an efflorescence of sulphur around its edges. The water that dropped from it was strongly impregnated with salt and sulphuric acid, somewhat like the water of the Dead Sea, but not so nauseous. Some sixty yards below the jet, sulphur is collected by digging. A very pure sulphur is collected at the base of one of the volcanoes on *the Pacific* coast. The Indians dig holes in the

ground, and a network of sulphur is formed from the exhausting vapour. I was informed that much of the mud coating on the slopes of the Volcan of Popayan was formed by volcanic dust moistened by rain.

About twelve years ago there was an eruption of cenizas or cinders, from which the vegetation never recovered. On November 16th, 1827, there was a terrible earthquake, followed by an eruption, at 6 P.M., and another on the 17th; and a few slight shocks were felt at intervals for the rest of the year. The eruption was of glutinous mud, descending by the valley of the Cauca, and sweeping sand and rocks before it: a similar eruption broke out on the 17th of November, 1724. The governor informed me that in the last eruption the mud descended to the river, and nearly equalled the arches of the bridge in height; it was a black water with sulphurous mud. A lady there told me that, having accidentally stepped into it, it dyed her leg yellow for a year! Loud noises came from the volcan, and the tower of the church of San Domingo was shaken down.

Returned much fatigued to Puraseh. Found every one out of doors, it being a fête day; and amongst other amusements was the humane one of riding full gallop at a cock suspended in the air by a rope just too high to be reached, without a great exertion, from the saddle, and the plumage

of the poor bird was gradually and cruelly torn from him, until at last, by a desperate effort, one rider succeeded in pulling him down.

Walked the next morning to see the Rio de Vinagre, as it is termed, which runs down from the volcano The steam-jet is one of its sources; the principal one, however, is two and a half leagues up the Paramo. The rocks around it were white and green. It descends in rather a fine fall near Paraseh, and by another leaps into the San Francisco stream that descends to the Cauca, two leagues distant. The temperature of the water was 68° at 10 A.M., that of the atmosphere being 66°. It was curiously impregnated with sulphuric acid, and was drunk as a laxative medicine by the natives. Brought away some of it in a bottle. Some forty leagues north of this volcan of Puraseh is another volcan named Huela, still higher; and another, Zotija, a long way to the eastward of the southern road from Patia.*

* The first cry for independence broke out at Popayan in 1809. During the Spanish rule the city was comparatively a paradise, with reference to society, as far as theatres, balls, and plenty of money could help to make it one. Since the outbreak for independence there had been several distinct local disturbances or revolutions there; one commencing at the bridge of Palaseh by a battle gained by the patriots; another at Calivio, near Cauca; thirdly, in the Plaza de Popayan, in *1820,* when Bolivar and the patriots under General Ovando *were beaten* by the Spaniards under Calzada, who were again

June 30.—Started late in the day from Popayan for La Plata and Bogota, passing the bridge over the Cauca. On the hill, which soon begins, I stopped to dine and sleep where I had an introduction, and much enjoyed the fine air after the heat of Popayan. The ascent to the much-talked-of Paramo, or open mountain track of "Guernacas," still continued; and I saw my muleteer buy a cloak made of a peculiar grass, which was to bid defiance to the rains and turn them off as from a roof. The white jet of steam on the volcano was very conspicuous in the distance to the right. Halted for the night at

beaten by a force from Bogota at Pitayo, on the way to La Plata; and in 1821 Bolivar and Sucre beat the Spaniards in Pasto, and there was peace until 1828. In that year Ovando commenced a rebellion in Popayan against Bolivar, who, he said, was wishing to be crowned as emperor, and beat Mosqueva, his general. In 1830 a revolution in Bogota in favour of Bolivar, who was in difficulties, and Mosqueva fled: peace made. In 1840 another disturbance, and Ovando, who was at Popayan, was accused of the murder of General Sucre, and ordered to Bogota to exculpate himself; and then there was another revolution by Ovando, which was suppressed by Mosqueva, who got up a *pronunciamento* against it. During the revolution in 1857 there was only one disturbance at Popayan; it was soon suppressed; but there was a good deal of fighting at Pasto, and by the late accounts (March 18th, 1862), it appears that Popayan has been occupied by the Federals, or Church party, in their struggle against the Liberals. The only apology I make for these details, so uninteresting to general readers, is that it is well they should be acquainted with the state of these democracies under the name of republics.

Tortora at a clean house. Thence begins a terrible ascent; in some places over steps in a corduroy road, which was very trying to the baggage-mules, the bones of numerous animals attesting its severity. The pass would be inaccessible for baggage-mules but for this corduroy road. Fine mountain scenery, observable in spite of the incessant rain and occasional hail, darkened with the smoke of the volcano. Very wild-looking forest, much the same in appearance as that on Pichincha. Robles (oaks). Flushed a couple of woodcocks. At length arrived at a point where I looked down upon a beautiful natural park, a flat plain, which I thought not less than twenty miles in length, and to have once been a lake. It is entirely surrounded by mountain-tops and primeval forest. The track over the Paramo lies north and south, and at the northern end it descends upon a tambo, or what in the East would have been termed a serai; but it was cold and wet, because no one had thought it worth while to cut a short drain. It is known as "Gabriel Lopez" from the name of the charitable builder. Such is the danger from snow-storms, &c., that a tambo here seemed a matter of necessity; but there was none in the time of the Spaniards. Found a Popayan family, who had preceded me. Large fire for general warming and cooking; coffee and chocolate handed round. *Heard* that the valley had been offered for sale

at 10,000 dollars, but without success, as the cattle at a hacienda at the southern end had been much molested by jaguars, pumas, &c. The country much covered with the frailejon, but the height is below the limit of forest.

A very cold and misty morning succeeded. Made a further ascent of about three miles, completing the whole track over the highest surface of the Paramo. Trees much mossed, and charred by fires—of use in a snow-storm. Small lake of half a mile in length on the top. Understood that some large and extraordinary animal of the horse genus was often heard making a noisy escape into the forest at this spot, where the Paramo ends; probably a tapir. Ulloa says that this, of all the South American passes, is the most famed and dreaded; and he adds, that tributary streams of the Cauca and the Magdalena flow from each side of the lake.

The descent begins, practicable at one place only, close to some dark slaty rocks. The usual formation, which seemed to be porphyritic, is continued through a deep ravine between lofty precipices. The forest soon shows itself; ferns abundant. Lower down, tropical and parasitical plants in all their beauty: bamboos plentiful. Descended towards "Las Corrales," a large open shed, on an open space in the forest, where there was a stream, coloured as if by running through a Scotch heathery bog. The place full of travellers,

with their mules, &c. Huahuacos, or cherettas, the wild pheasants of the Gran Chaco, perched in small flocks on the trees. Shot one for dinner. Sketched the place.

Continued descent on the next morning. Condors. The tallest trees were the statuelos, the stems thickly covered with thorny projections. Slept at La Cija, another open tambo or shed. Humming-bird. A gentleman from La Plata told me that an ounce of quinine was worth 25 dollars in the district, and that the same quantity of Bogota salt was valued at 3½ dollars. Corduroy road still continued; the red soil would hold no other pavement. Schistose rock; great number of alcalde hornets; could not see what they were hunting for. Joyous and ringing cheer of the numerous arrieros, by way of encouragement to their mules: palms, tree-ferns, and plant with very large heart-shaped leaves; displaying a beautiful variety of outline which is wanting even in the finest European scenery. Abundance of insect life: large black and white caterpillars and brilliant butterflies.

At the foot of the pass was the full stream of the river Uyuco, with a scientifically constructed lever bridge of bamboo. Six miles further descent to Insar, a small but very pretty village. The yellowish-white flower of the agave visible everywhere. The same river flowing south to *north*, and north to south, about three leagues

further down, and was joined by a large stream of the Rio Negro from the eastward. Cliffs of basaltic rock were called "volcan." Large white flower, with leaves a foot long, called Azusana. Wild guayavas. A fête day, upon which the cura receives seven dollars. No pay, no fiesta, so I heard. Fireworks and village sports. Long but easy ascent. Yellow cassia blossom, and red plant much resembling a myrtle. Black and red bird, like the grackle of North America. Figueras and papay-trees, with fruit looking like a melon. Continued the descent to the town of La Plata, in the rich valley of the same name, through which the Paez river, spanned by a lever bridge about thirty yards wide, was running with formidable velocity in a southerly direction; valley lying due north and south.

July 7.—La Plata; having arrived there from the village of Laderas.

Four mules and two arrieros cost about thirty-five dollars from Popayan, a week's travel. Was told of some loadstone rocks in the vicinity, but missed seeing them.

La Plata contains about seven hundred houses. Situation beautiful, with mountain slopes around. People not very good-looking; cretins with goîtres. Clouded and cool day; glad to put on cloth coat. Lunched on some not very large but delicious pineapples reeking with juice; three or four for sixpence. It is known that

the juice of an unripe pine is poisonous in a wound. Met a Swiss gentleman, Herr G——, who was very civil and obliging. Saw a black bear-skin with short hair, and white spot on the neck. Tree with pointed leaf, and fruit like a mulberry; also a golden-frosted acid fruit, orange-shaped. A billiard-room; the shops poor. Heard that the valley extended a long way to the southward, where it was proposed that the new Popayan road by Puraseh should join it. Scorpions common; locusts numerous. Mr. G—— told me that they affect the milk of cows fed on grass partly consumed by them, and that the flavour of fowls and their eggs was also injured. Cattle dreadfully bitten by sangsudras, a species of fly. I had seen them on the low grounds at Santos, in the Brazils. Spoke of the increasing chances of New Granada becoming Protestantized. Fossil limestone on the pavement in La Plata. Surprised to hear the cry of a peacock at Cali, on the Cauca; and in that vicinity I had been told to ask for querema, a sweet-scented plant, but had forgotten to do so.

Left for the northward, passing over and up the river, crossing the bamboo bridge; the mules obliged to swim. Schist by the path-side; very large black hornet; valley beautiful. The junction of the Paez and La Plata takes place about four leagues from the town. Perpendicular *cliffs* on both sides of the valley, but not opposite.

Brilliant blue butterfly. Met an Indian family; one of the boys in a wideawake, which was made picturesque by a beautiful wreath of the rose-coloured flowers of an orchis. Ants' paths very numerous; little red dove; straw-hat makers. Saw a "king of the vultures"—the first I had met with—sitting unconcernedly within shot on the top of a tree, with his white wings half-expanded. After about three leagues ascended a slope to the eastward; two more brought me to the large village of Paicol. Met an old officer of the Revolution, Colonel R——, at a house where a gentleman had obligingly given me a room for the night. Thence to Domingerias, a small village. Shot real partridges in the way. Ants in myriads, on their own paths, in all directions; but no part of South America is free from them. Country covered with verdure, but chipped up into lofty red precipices crowned with forest. Clean hut close to the ferry over the Magdalena river—which I here saw for the first time—a full rapid stream a hundred yards wide, sweeping from the rough hills on the east and towards the west. Saw cattle driven across by men swimming, with the assistance of logs. One poor cow was drowned. The owners took it very coolly; seemed to know exactly where it would appear on the surface again, and it was soon deposited on the bank in a very sketchable attitude against a rock. The mules and horses

swam as if used to it. Cloudy and cool weather. Country became more open, and the valley of La Neyva was evidently at hand. Partridges numerous. Snake killed by a species of ant.

Quantity of granite boulders, as if they had descended in a volcanic shower. Arrived at Obo village. Clean room. From Obo to the town of La Neyva eight leagues: broad, open, flat valley, with beautiful sierras on each side, that on the left separating the valley from that of the Cauca. Track follows the right bank of the Magdalena; not often visible. Small birds with very long tails, streaming curiously as they flew against the wind. Boys catching fish by turning up the stones in a brook. Red-backed species of eagle. Openly built town; clean room; and dined at the fonda at La Neyva. The Magdalena about a hundred yards wide, and may be descended in a boat.

From La Neyva to Fonda Delgado. Numerous streams, but track dry. After passing some ravines, arrived at Fortalicella, a small fonda, so called from several curiously-shaped natural mounds near it, looking in the distance like fortifications. By one I was much reminded of the topes of the Punjaub. Thence to Campo del Tortonia. At one league distant passed the Calvera, about eighty yards wide, in a canoe. Rock of amygdaloid, exactly resembling the *volcanic* rocks around Kashmir. Terrible heat,

but night cool. Kept awake by a ball. Ravine, with caoutchouc-trees like the peepul of India, hijueras, and the tall caracola. Heard the cicadas, as at Simla, in the Himalayas, but still more noisy. The face of the country seemed to have been moulded and ravined under water. On the left was a beach more than a thousand feet above the Magdalena, looking as if it had been the bed of the river which now flows at its foot.

Was told of mastodon bones at Tunga, north-west of Bogota. Morass and stone; beach tilted up towards the east; nodules of trachyte, as round as cannon-balls. Odoriferous plant. Was shown a coya, or minute red spider, with long legs, and a small web extended in ruts and uneven ground; said to be very poisonous by the peasants, but the fact is doubted by some. Cured by lemon-juice rubbed in, and brandy internally.

About six leagues from Los Angeles I was ferried over the small Prado river, a mile from the village of the same name. Saw an osprey; the first I had noticed in South America. The road afterwards leads to a flat valley some twenty miles wide, broken up by low sandstone strata cropping out and forming ravines, each usually containing a stream; sometimes well wooded. I found Tortonia the hottest part of the valley. Graves of two persons who had died on the road; but the women at the fonda—within two hundred

yards—knew nothing of the cause. "Quien sabe?" was the reply to my inquiries. Slept at the posada after passing the ferry. Bathed in the stream in the morning. Anona-trees in the Patio. Batales about eight leagues from Prado. Here a man, who spoke English, told my muleteer he ought to give me another mule. Pretty scenery, like that of Arcadia as seen from the coast of the Adriatic. Flocks of goats; the goatherds playing on the guitar instead of a pipe. Flycatcher and long-tailed shrike. Buzzards. Sandstone knolls rising above the woods; the path rising over the hills, and then dipping into the shady recesses of some well-watered ravine. Huarape and chicha in the cottages, which were numerous, with mud walls, and thatched with date-palm leaves, divided into two rooms, and sometimes with an upper story, supported by bamboos; cooking-place formed by three loose stones, and a fourth hollowed out as a mortar. Maize, salt meat, onions; and a large red vessel, containing water for the family, is always within reach in one corner of the room. Pigs, numerous turkeys, chickens, and guinea-pigs, are generally to be seen. The women wore white, with blue petticoats and straw hats. The river is called Fusagasuja, coming from a village of that name. A good meal of rice and huarape was prepared for supper *and breakfast*. Bathed in the river, which was

about a hundred yards wide. The fish are the baghris, like a cat-fish; cuchara, or spoon-fish; the dorado, bocachico, batelos, and the moynos, or caribbees, about a foot long, who are exceedingly dangerous to bathers.

Awakened by the chattering of my hostess and a newly-arrived guest, who addressed each other as compadre and commadre. Feverish in the morning. Cassias in the forest; a species of pavos del monte, looking like moorhens. Large ceba tree.

July 22.—From Batales to La Suga; a tambo or hostelry. Bathed in the stream, after ascertaining there were no sting-rays. This is a flat fish (narcine ?), which, lying at the bottom, may easily be trod upon, and it then erects the back fin with the spines pointing forward, and often inflicts a lacerated wound in its struggle to escape. To avoid this, one is advised to wear slippers. The electrical eel is more dangerous in the large rivers, and the least valuable horses and mules are sometimes driven into the stream by travellers about to cross, in order to receive the shocks of this formidable animal.

Passed the river of Bogota, about sixty yards wide, and arrived at Toquehemia, the lower hills closing in upon the river. Followed up its course; hill and valley. Glad to taste huarape again. Improving appearance of the country, with habitations and cultivation.

Heard that arrieros, on account of their exertions, are often seized with bleeding at the nose. Numerous blocks of fossil limestone about the track, containing scallops, and, I thought, oyster-shells also. Approached the high slopes, or ghauts, as they would be called in India, with clouds resting on them, leading to the plateau of Bogota. Black hornets and violet-coloured butterflies common. Slept at the fonda at Apoyama, on the slope. Gentlemanly old asthmatic priest there, with attendants.

July 24.—To La Mesa; always ascending by the only road deserving the name which I had seen since leaving Lima. Noticed goître, leprosy, and elephantiasis: oranges and mangoes, Slept at the fonda. Beautiful forest of bamboos on the slope on the left of the road. Rode on in advance of the mules, who had met with an accident; was forced to ask a night's lodging from the cura of a village, and was immediately and hospitably received, the mules pressing on all night to Bogota. The city was visible at a great distance at the foot of the hills across the almost trackless plain; but it seemed as if I should never reach it, so numerous were the windings, on account of the water.

Arrived at Bogota July 28th, having left Quito April 30th. The good wide road was *paved in* the centre, as in France. Put up at

the English hotel, where I found a party of gentlemen from different countries.

Dr. Smürda, an Austrian naturalist, whose agreeable and scientific society I had first enjoyed at Mr. Cope's house at Quito, had followed me to and from Popayan. He had dared the feverish climate of the proverbially rich valley of the Cauca, and arrived at Bogota a day only after I did, who had travelled by the comparatively cool and healthy valley of Neyva. He spoke in the highest terms of its known and wonderful fertility, and, as a botanist, was profuse in his praises, as every other traveller has been, of the extraordinary beauty of the forest of wax-palms, seen from the pass of Quindiu. He commenced hunting for infusoria at Bogota, and told me he had found a species hitherto known only in Siberia.

Santa Fé de Bogota, or Cundinamarca, as it is called by the Indians, contains about 60,000 inhabitants. Vaccination is compulsory, but it is avoided when possible, being supposed to supply a covert way of taking a census for taxation. There were formerly few strangers there who were not Jews, and the small number of emigrants from Old Spain is remarkable. There still exists a want of cordiality (or, perhaps, a stronger expression might be used) towards the Spaniards; but a more powerful reason is, that Spain is not troubled with a

surplus population sufficient to enforce the encouragement of emigration, and, moreover, her mistaken pride has prevented her acknowledging the government of New Granada; nevertheless, any number of emigrants would be well received there.

The citizens of Bogota live under an immense assemblage of red gable-ended roofs supported on white walls, with barred and grated windows of different colours, and with the general aspect of a dull Spanish town, well watered by streams conducted from the hills. The Calle Real is, however, an exception, having a lively and commercial aspect. It is of no great width, but runs the entire length of the city, and contains not less than twenty-two churches, most of them of small dimensions; numerous convents, merchants' houses, and some very good shops. There are several plazas, the cathedral being in the principal one, which is surrounded by an arcade or portales. One of the towers is said to be in a dangerous state, in consequence of an earthquake. The same earthquakes have been felt both at Bogota and Popayan. Two or three slight shocks occur every year, and a severe one about once in five. In 1826 and the following year there were violent earthquakes at Bogota. A German ill with fever and ague bolted out of bed from fear: on returning, he found that *he had* narrowly escaped from an *embarras de*

richesses; a quantity of gold coin, which, had it fallen on his head, must have killed him, had been shaken from one of the hidden sanctuaries for treasure, which few houses are without in these countries, and of which he knew nothing.

A large market, well stocked with fruit and Indian produce, is held in front of the cathedral. A very fine general view of the city and the vast verdant plain beyond it is obtainable from a terraced walk on the rise of the hill. It is bounded by the long white line of the lake, through which, after passing by Cepaquira, flows the river Funza, formed by the collected streams of the mountains a hundred miles to the northward. On the plain it is joined by the smaller river from the hills behind Bogota, and then, flowing to the southwest of the city, falls over a precipice of nearly 600 feet at Tequendama, and makes its way to the Magdalena.

The three plains of Bogota, Fusagasuga, and Melgar, form a "tierra fria, templada y caliente." From the second named valley, where there are several country houses, another stream descends through that of Melgar to the great river. Mr. Mark, to whom I am indebted for much information, such as a resident only can attain to, told me that the ride downwards was very beautiful, and that he once descended the Magdalena to Honda by means of a raft which he joined at Guayacana. The Fall of Tequen-

dama is erroneously marked in the maps as being on the Fusagasuga stream. The lake itself seems to rest against the boundary ridges of the plain, and high over them is seen the snowy peak of Tolima rising from the Cordillera on the western bank of the Magdalena, and dividing the valley of its stream from that of the Cauca. It is calculated that the area of the plain of Bogota, thirty-five miles by twenty-eight, is about that of the island of Barbadoes; the average height of it, the city being a little above it, is 8,495 feet,—a few hundred feet lower than Quito. The temperature of Bogota ranges between 57° and 63° in the shade for the greater part of the year. In the winter months thin ice may be seen to about 8 A.M.; but at that hour, when the sun is up, the heat is much the same as at mid-day. Rain sets in in the beginning of September, and lasts for two months.

The blood of the Indians is said to be of two degrees less temperature than that of Europeans. Dr. C——, the most experienced of the four English physicians there, says that the air of Bogota is very favourable to the healing of wounds. The London road, as it is termed, leaves the city on the north-west for Honda, on the Magdalena. It passes the residence of Mr. Griffiths, H.B.M.'s *chargé d'affaires,* to whose friendly and courteous hospitality I am much *indebted*; and the presence of the gentlemen of

the French and other legations imparts a higher tone to society than is generally met with away from the coast. The theatre has its attractions; dinners, balls, &c., are more frequent. I was present at a very good amateur concert where some of the prettiest young ladies in the city sang in public, and a gentleman of Bogota performed Paganini's "Carnaval de Venise" in admirable style. The general state of society is much the same as that of other large towns in South America. I was told that children are seldom contradicted, and the effects of peevishness and ill-humour are simply termed "gracias," or perhaps "exuberance of spirits."

A tragedy was enacted there during my stay: the body of a native gentleman who used to sit next to me at the *table d'hôte* was one morning brought into the hotel. He and a friend's daughter had been unfortunately upon too intimate terms, accompanied with a charge of a breach both of confidence and promise. It was known that mischief was intended by the injured father, and several people walked the main street in order to see the rencontre between the two. It resulted in the immediate death of Señor J—— by a pistol-shot followed by a stab, by the father, who at once, attended by his friends, repaired to the casa de policia, gave himself up, was tried, and acquitted.

Went to see the house where Bolivar was saved

from assassination by the devotion of his mistress, Doña Manuela Saenz. The window from which he escaped, with the assistance of sheets tied together, was eight feet from the pavement. It was said that he wished to be crowned, and even that a crown was prepared, but I heard that no one had ever seen it. The Liberador fled and concealed himself under a bridge in one of the ascending streets. Hearing his pursuers say that the "Barjas" regiment (so named after a victory under Col. Whittle, an Englishman) were holding out in his favour, he contrived to reach their barracks in safety. General Jose Maria Cordova, "the Columbian Mars"—"angel hermoso del combate," and the chief of the conspirators, raised the standard of revolt in Antioquia, and was severely wounded. Orders having been given to take him dead or alive, the officer who went to do so was obliged (such is the story) to shoot him in self-defence, and Cordova, the "Gonzalo of Ayacucho," lying mutilated in his tomb, "era el testimonio mas elocuente de la ruina de Columbia, y de la libertad."*

There had been seven revolutions in Bogota, and the constitution had been altered six times since its first promulgation in 1825.

I had the honour of being introduced to General Ortega, Minister for Foreign Affairs, and

* "Apuntamentos parata Historia de Neuva Granada." *(Bogota).*

also to General Mosquera, the President, a fine-looking gentlemanly person, of moderately liberal opinions. He had been Minister of Finance, and afterwards Director of the College at Medellin. After the civil war in 1841, the Government of General Herran thought the State too democratic, and recalled the Jesuits, and twelve of them arrived, and resided under the same roof as the university professors, but they were turned out of the country by Lopez.*

I need scarcely add that a civil war is now raging in New Granada; Ospina, of the Jesuitical party, the President, being opposed by Mosquera, whose successes as Dictator have ranged from Popayan to Panama. The cause of the civil war is, that the Church party, or Conservatives

* The presidents of Bogota were Bolivar, Joachim Mosquera, Santander, Marquez, Herran, Tomas Cipriano Mosquera, Lopez, Ovando, Ospina. Joachim Mosquera remained in power but a short time after Bolivar; General Santander died a natural death; Herran held office for his whole term, and has since been Granadian Minister to the United States; Mosquera and Lopez remained in for four years, succeeded by Ovando, the presumed assassin of General Sucre. Having attempted a *coup d'état*, which kept the country in a state of anarchy for eight months, he was attacked and defeated at Boya by the united forces under Mosquera, Herran, and Lopez (December 24, 1854), by whom he was impeached and deposed, subsequently falling by the hand of an assassin. I saw General Malo, his commander-in-chief, a refugee and pennyless, at Greytown. The elections ended in favour of Señor Ospina, of the High Church party.

as they term themselves, wish to make a strong effort to regain the ascendency lost in 1849 by the election of Lopez, a Liberal, and which, as people in New Granada are beginning to think, it only partly recovered upon the election of Ospina: but I was told that the ends of these politicians are not well defined, and that there is a want of cohesion and specific aim in their revolutionary movements, so that they can scarcely escape the imputation, even if undeserved, of acting for self-interest or aggrandisement.

The 7th of March, 1849, is commemorated by the Liberal party as the anniversary of the election of Lopez, the first candidate who had been successful for some years. So determined were the Liberals not to be beaten by Ospina and the Jesuits, that they resorted to successful intimidation, and many of them went armed into the Assembly. In allusion to the wound thus received by the Church party, a dagger is sometimes called a "siete de Marzo" (a 7th of March), an association of ideas not extraordinary in Spanish America, where such a weapon is too often in use.

The political state of Venezuela does not much vary from that of other South American republics. A war between the partisans of Federal institutions and a centralistic Government, has been raging for the last three or four years. A

series of revolutions had previously almost ruined its commercial and agricultural prospects, which latterly would have been completely prostrated but for the immense internal resources and assistance from foreign capitalists. Great hopes were entertained from the negociation of the loan of £1,000,000 then before the commercial community of London; and if the money be well laid out, it would be of infinite service; but if not properly employed, will do more harm than good. In natural resources, varied climate, and fertility of soil, it is said to be exceeded by none of the South American republics, and to the emigrant presents advantages over New Granada, Peru, and Bolivia, on the opposite side of the continent. Caracas again, the capital, situated 3,000 feet above the level of the ocean, in a beautiful and most fertile valley, is only seventeen miles from the coast and the port of La Guayra, and is easily reached by three bridle and one carriage roads. Bogota, I need scarcely add, is attainable by ascending the Magdalena, and is altogether some 900 miles of travel from Carthagena. Venezuelan Guiana is a country essentially adapted for the cultivation of cotton, and has the advantage of the stream of the Oronoko flowing through its whole extent. Disturbances are still rife, and fighting is still going on, in Venezuela.

On the 12th of March, 1812, Caracas was

destroyed by a terrible earthquake. Humboldt says* "the sufferers saw enormous masses of rock detached during the shocks." He adds, "that amidst so many public calamities the people devoted themselves to those duties which they thought the best fitted to appease the wrath of Heaven. Some assembled in processions and sang funeral hymns, others in a state of distraction made their confessions aloud in the streets. In Caracas was then repeated what had been remarked in the province of Quito after the tremendous earthquake of 1797: a number of marriages were contracted between persons who had neglected for many years to sanction their union by the sacerdotal benediction; children found parents by whom they had never till then been acknowledged; restitutions were promised by persons who had never been accused of fraud; families that had been long at enmity were drawn together by the tie of common calamity."

It was generally believed in Caracas—as Humboldt, in whom they put great faith, had predicted—that another earthquake would take place fifty years afterwards. A Venezuelan gentleman informed me that for one or two years previously the subject was constantly talked of as the appointed time drew near. An

* Humboldt's "Travels," vol. i. p. 453. (Bohn.)

almost positive belief in the prophecy had taken place of mere surmise; but certain it is, that in the same month—March of this year (1862)—and during the observance, as before, of one of the Easter ceremonies, a sudden and violent earthquake occurred, and was several times repeated; and although no great damage was done, people met and passed each other in terror, exclaiming, "Este es el tremblor que predicò Humboldt, hace como cincuenta años!"

Well authenticated maps, giving an outline of the extent of any earthquake of consequence, and coloured according to the different degrees of intensity at different places, would be interesting and useful as aids to geological research.

When General Monagas presided over the destinies of Venezuela, an idea was entertained of disposing of parts of the territory, and of offering it to England, as it adjoins British Guiana; and had cotton been cultivated, our manufacturers would not have had so much cause for complaint as at present; but any additional acquisition by a European power is looked upon with jealousy by the South American republics. General Paez, one of the oldest heroes of the War of Independence, and the friend of Bolivar, was proclaimed "El padre de su patria; el salvador de la Republica," and is till supreme chief, in fact, Dictator, of the republic. He is now far advanced in years,

and it is not improbable that his death will be succeeded by a still greater increase of political confusion and anarchy. Bolivar, Sucre, Paez, Roceafuerte, and Florez, were born in Venezuela.

Any young democrat aspiring to be a world-mender, whose fancies about the compatibility of liberty with equality and fraternity have become fixed ideas with indulgence, should reflect that he has hit upon nothing new,—that thousands upon thousands have thought as he does, often because there is not the slightest difficulty in comprehending such a simple and alluring theory when received apart from the actuality of experience. A visit to these Spanish republics, and an acquaintance with the anarchy, bloodshed, and rancour produced by the very numerous revolutionary attempts, failures, and successes which they have witnessed since the first dawn of their independence, would teach him to reflect that all government must be more or less artificial from its very commencement,—that the very first arrangements of despotism, the very first steps from anarchy to order, must be artificial. The power of the masses, by means of a too general suffrage, so plausibly swamping the name of tyranny while retaining its power, has always been succeeded by military despotism. He could nowhere be so well reasoned into a belief that the machinery *of* one government differs from another only

in its being more or less artificial, and that that artificial system must be the best which can display the greatest amount of rational liberty in union with the most polished civilization and a power to meet, and more quickly than any other, the undue aspirations of ambition with repulse and discomfiture.

Upon more than one occasion in South America I have listened as a stranger to observations in praise of the far greater security of life and property during the Spanish rule; and a gentleman of distinction in one of these republics remarked to me,—"Talk of despotism! There is often more of it here than in Russia!" The party in power keeps up a constant surveillance on those who are out, and often not without good reason. Much will depend upon the example set by the Southern States of North America, and, perhaps, still more on the results of a pacifying and useful occupation of Mexico; but I have no difficulty in persuading myself at least that many of the older families and of the ablest men in the more northern republics are convinced that the only salvation of their country would be the establishment of a constitutional monarchy independent of Spain; its adoption not, of course, to be enforced by foreign bayonets, but gradually approached and supported into activity by strategetical, internal, and political movements.

One party objects to taxation for a standing army, which they consider useless, as it ought to be, instead of being, as it is, indispensable in these republics.

A short time before I reached Bogota a depôt of powder had blown up and done considerable damage to the adjoining houses, and it was at first concluded that some of the troops had perished. Some countrymen, who happened to be near, rode away as for their lives, and my informant heard one of them, as he was galloping down the main street, exclaim, "Gracias a Dios! ya se acabò el ejercitu!" (Thank God! there's the army done for!) A parrot belonging to an English lady was heard, the moment after the explosion occurred, to exclaim, "Ahora yo me voy!" (Now I'm off!), took flight immediately, and did not return for five days.

The constitutions of these different republics vary but little from each other, and usually only with reference to the duration of office. In New Granada the presidency lasts four years.

In addition to the Government organ, "El Gaceta Official," the "Neo Granadino" was the leading journal in Bogota; it wrote against the Church party, whose paper was "El Catolismo;" but these names are frequently changed. The religion of the State is, as usual, *Catholico, Apostolico, Romano*, but the free exercise of

public and private worship is guaranteed, "so that it does not disturb the public peace, nor offend against morality, nor interfere with the worship of others." Every ordinary branch of education, excepting Greek, is taught in the colleges, at the expense of about 150 dollars yearly for each student.

The slavery question was well dealt with by Bolivar. All children of slaves born after 1821 were to remain as slaves up to the age of eighteen, but in a state of apprenticeship to some trade, and were called "manumittados; all born previously remained as slaves for life. This arrangment worked very well up to 1851, when the president Ovando gave them all liberty.

Whilst I was at Bogota they were taking votes for the next presidency by means of ballot-boxes ranged under the portales in the plaza. The only question asked of a voter was his name. Señor Mallerino, the Vice-President, imagining that the previous and legally necessary registry might in his case be dispensed with, walked up to give his vote, which was, however, rejected, in consequence of his not having registered as usual a month previously. Bribery is as well understood here as anywhere else. In the province of Tunja the number of votes returned on a particular occasion was 1,500, forty-five only being the actual number. In another place in the same province, where thirty persons actually voted,

600 was the number returned by these enthusiastic politicians; and these votes were taken by ballot!

One hears a good many quaint stories of the events and characters connected with the revolutionary times. An officer who was employed by Bolivar to treat on some occasion with the Royalist Spanish general Morillo, was told by him that he had proved himself Bolivar's best friend for having shot so many lawyers at Carthagena! One revolutionary general was such a determined enemy of the Spaniards, that having taken a boat-load of prisoners at Tenerife, on the Magdalena, he had them brought out one by one and ordered them to pronounce the word "Francesco," and those who pronounced the first *c* like a lisped *th*, as in the real Lingua Castellana, were immediately run through. As the North Americans sometimes say that they speak better English than is to be heard in England, so the Spanish South Americans lay claim to the best pronunciation, and discard the *th* as much as possible. The same general once gave his servant sixteen reals to buy bread and brandy, to which he was much addicted, and was afterwards enraged because the man had laid out one real in bread, and was heard to ask him, "Porque el diavolo ha traido tan pan?"—("why the devil he had brought so much bread?") Having persuaded a friend to join in the expense of

building a house with him, and then saying he had a right to do what he pleased with his own, he swore he would set fire to his half unless the other bought it at the price he named.

I was permitted to accompany Mr. Griffith and Mr. Mark when going to pay their respects to the papal nuncio lately arrived, but he was not at home. He is addressed as "Excelentissimo." Went again to the archbishop's palace in company with Mr. Mark (the British consul), himself an accomplished artist, to see a Murillo. I have it in my notes that it was very graceful, but forget the subject. It was, I think, in a frame of diomate wood, like a brilliant mahogany: it was brought out by a former archbishop of Gongara. Under it and over the altar was a tawdry wooden figure. The portraits of the kings of Spain in the Courts of Justice had been burnt early in the century.

We went also to the Museum, where is Pizarro's standard, brought from Lima by Bolivar; a mummy, and the robe of Ahatualpa; portraits of the vireys or viceroys, &c.

A remarkable and somewhat isolated hill, known as Monserrat, rises behind the city for a height of about 1,200 feet. It is ascended by a good path with niches for halting-places, and on the summit is a small fonda. The views from it are of great extent. On the southern side, between it and the adjoining ranges, is a pass,

through which winds a picturesque horse-track to the plain or wooded paramo on the summit of the ridge, about 10,000 feet above the sea, and bounding the plateau of Bogota to the eastward.

Mr. Mark estimated the whole width of the cordillera from Hinda on the Magdalena (about 800 feet above the sea), including the plain of Bogota and over the paramo to the plains of the Meta and the head-waters of the Oronoko (about 1,200 feet above the sea), at about thirty-five leagues. The descent on the eastern slopes is broken by the valley of Coquera. I was also informed that an 18-gun brig could ascend to the junction of the Meta and Oronoko, and that a boat not drawing more than four feet of water could come within twenty-four leagues of Bogota.

New Granada is about two-fifths larger than France, and contains about 2,250,000 inhabitants. To the eastward of the cordillera there are not more than three inhabitants to the square league.

We attempted a ride to the paramo, but were driven back by a storm. The quantity of rain created a violent rush of water that would have deluged the city, but for the well-made ditches and gutters long since ready to receive it.

On the hills immediately behind the city I noticed a lavender-coloured flower (ageratum); a melastoma, with a purple flower; castor-oil

plant; red fuchsias; salvia, or wild sage; mountain vecuco, or guaco of Mexico. Heard of a tree (the manzanillo) known here as the Pedro Hernandez, considered prejudicial to any one sleeping under it. On the way to Venezuela I observed a tree with large succulent leaves, called, from its bad odour, the mapurito, or skunk-tree. The Indians drink the blood of the turkey-buzzard as a remedy for certain complaints. Heard also of some highly-bred English pointer puppies, given over for distemper, who were unexpectedly cured by crawling into a sugar warehouse and picking up the refuse on the casks, and also of guaco being given for distemper with good effect. Mr. S——, an English resident, who brews a very fair glass of bitter beer, showed me, in a sort of marsh ditch near his gardens on the edge of the town, a plant whose leaves had an exceedingly strong bitter taste; it was, I believe, the huayusa, already mentioned. I should be ungrateful to forget the agreeable evening lounges at the fresh-air residences of our friends Don N——, Mr. L——, and others; or our snipe-shooting excursions on the Zepaquira road; or my expedition, by the kind permission of the owner, to a hacienda called Buena Vista, where I one day killed twenty-five very large double snipes. When stretched out, legs and bills, they were not less than seventeen inches in length, and nearly

nineteen across the wings. Observed that they have three distinct cries; when flying high, round and round, or wishing to alight, when their cry resembles the chattering of a cock-pheasant rising, but of course is not so loud.

Humming-bird skins ready for packing are brought into Bogota and sold for one, two, or more reals apiece by the Indians. Some are killed by the blowpipe, others shot, I believe, with seed, or some charge equally harmless to the plumage; they are not, however, considered so valuable as those obtained at Quito. A white humming-bird was reported to have been seen at Tequendama. Mr. D——, of the hotel, was good enough to accompany me to see that most magnificent waterfall, distant only about seventeen miles: Humboldt estimates the height at 574 feet. The river drains the plain of Bogota, flowing in a narrow channel after it enters the hills, in some places beautifully wooded. By a miracle, worthy the sword of the prophet Ali, a narrow channel has been formed in the rock on the summit of a precipice, and the gap from which the river leaps is not much more than forty feet in width.

By sleeping at a village at the edge of the plain, we were enabled to arrive there at an early hour. This arrangement is necessary, in order to be tolerably sure of seeing the fall free *from* mist in the early morning. We were for-

tunate in finding it to be so, and the river was so full that it took but one leap from its suddenly-narrowed channel above. The crowded and unevenly-surfaced volume caused the separation of shapeless masses of water from the under-curtain, which in their fall became gradually elongated, and plunged into the basin like an incessant shower of rockets of brilliantly white and glistening foam. It is viewed from an open space, arrived at after a descent on foot over the rocks, in the everywhere abundant forest. El Balcon, as it is termed, is on the edge of the precipice forming the right side of the vast *cul de sac* into which the river is precipitated, and afterwards leaps and rushes down the narrowed ravine towards its junction with the Magdalena. A dense vegetation covers the ravine in every part excepting the precipice. The leaves of a waterside plant, not less than seven or eight feet long, are visible in the downward distance on the rocks immediately beside the foot of the fall, which is attainable by a scramble that occupies not less than two hours. It is remarkable that the ravine, perhaps more than a furlong in width, contains a stratum of coal cut through and appearing on the opposite side of it. We saw large blocks of it heaped up in the forest as we approached the Balcon. It is taken out near the surface and below the strata of new red sandstone, which again is

resting on limestone. The mass appears to have been originally divided by a convulsion of nature, and then to have had its sides worn by the action of the stream. Mr. Mark informed me that the seam of coal is extended under the savannah of Bogota; it is again worked at Chia in the middle of the plain; and again at its northern end, at the salt mines of Zepaquira, fifteen leagues distant, where some levels are carried under ground. Several pavos del monte were flying about the trees overhanging the Balcon. The appearance of the fall at night, if properly illuminated with Bengal lights, would be such as to reward the expense incurred; but it would be advisable to have some roofs or tents in immediate propinquity. The fall of Tequendama is more than three times the height of that of Niagara, and is far more picturesque; and I thought that, with the exception of that diapason of fresh waters, it was the finest I had ever seen.

The dragon's-blood tree, such as I had seen near Oran, is found in these forests; and another called acuapa, which blisters the hand.

At a few miles on the northern paved road to Zepaquira and Muza there is a small village, and a posada, made use of in snipe or wild pigeon-shooting excursions. The emerald mines of Muza, 2,500 feet above the sea, are in the hands of a company. Dr. D——, one of the directors, was good enough to explain to me the mode of

working them, with the assistance of an excellent model. In a valley between two bare hills, about 900 feet high, there is a cavity of about 100 yards by 50 in width. The Spaniards originally worked them in a different manner,—first lower, then higher. The present company has cut a socabon or tunnel of about 100 yards long through the hill, from the lowest level to the exterior quebrada or ravine, for the purpose of having a command of water to carry off rubbish and broken rock. The vein in which the emeralds are embedded is of mica, slate, and carbonate of lime, the enclosing rocks being of sandstone. In this narrow vein one man works with a pickaxe, moving backwards; another is in attendance on him with a small matè cup or gourd, into which the watching overseers deposit the emeralds for the time being. It is very rare to find one without a flaw. The shape of an emerald, it may not be generally known, is that of a hexagonal-sided basaltic column, and ordinary emeralds are slices off it. It is from these mines that all South American emeralds have been brought, and not the banks of the Esmeraldas river. It is remarkable that at Muza there is a green beetle said to be unknown elsewhere, and the blue butterfly, known as morpho cypres, generally considered to be the most brilliant species known. Mr. Mark told me, however, that he observed another of a still richer metallic

hue in the forest about half-way down the Magdalena. At Muza also is found the muzite, a small light chocolate-coloured mineral, whose shape is that of two hexagonal-sided and truncated cones, base to base.

Sept. 4. — Remarkable sky at sunset; rose colour on the horizon, blended in with purple to the zenith, and patched with numerous clouds all of a very decided green colour.

A full account of the Muyscas, or historical natives of Cundinamarca, has been translated from Acosta's "Compendio."

The Chibchas (Muyscas) is the right name of the Indians whom the Spaniards found in the country around Bogota, — from Fusagusuga to Zepaquira,—ruled over by three chiefs, of whom the Zepa of Bogota was the most powerful,— lived in houses of wood and clay with conical roofs and doors of cane; the only natives who used small discs of gold as coin, worshipped the Creator, the sun, moon, and rainbow. The moons and half-moons of gold were carried in processions at their festivals. They also venerated "Bocheca" as "Dios bienhechor," counted by fives, dividing the circle into seventy-two parts, &c., and had a system of calculation, and, as in Mexico, a year divided into twenty months, but were ignorant, says Dr. Wilson (vol. i. p. 437), of the true causes of eclipses. They had human sacrifices, and they believed the soul descended

to the centre of the earth; their heaven, like that of the Egyptians, was full of animals. Acosta adds: "Se ve tambien una gran conformidad entre los signos de los Egypcios y los symboles de los Indios." *

I went to the salt mines of Zepaquira, but not to Muza, about two days' journey further north. Detained for two hours at a broken causeway over a flooded stream a few miles from Bogota until I had found a ford. Two small fish, one like an eel, called el capitan, are caught in the river on the plain. On the back of the mountains behind Zepaquira is the lake of Guatavita, into which it was said a great amount of treasure was thrown when the Spaniards first appeared; and on the borders of the lake of Tuquema is the large English-stocked farm of Señor Paris. I have already mentioned that the landed proprietors on some of the higher plains of the Andes are known as Orejones, on account of the large ornaments worn in their ears, and who claim to be descendants of the Incarial nobility, most likely originally of the tribe so called on the Napo.

Heard of a hacienda a mile and a half long and a mile broad, yielding 3,000 dollars a year. Ten thousand square yards of good pasture land was to be bought for about 200 dollars.

* "Compendio Historico del Descubrimiento y Colonizaceon de la Nueva Granada, en el Siglo Decimo sexto." Par el Colonel Joachim Acosta.

Wheat is sown as the first crop after clearing. A regular agricultural district round Zepaquira. Saw ripening corn, meadow land, and cattle. The town lies at the foot of the low rounded salt hills, which again rest against the higher mountains, and seemed to be of about the same extent as those of Mundi, in the Punjaub. The middle mine has three adits, one about 300 yards long. A stream runs rapidly down a sloping channel, in which are placed the blocks of salt; and the water thus impregnated is allowed to flow into stone tanks, where it is kept with twenty-three per cent. of salt in it, which is collected by boiling with coal fires in iron pots until dry, then broken up and placed in large earthen jars, and water again poured over it, which is allowed to evaporate; the jars are then broken and the salt is shaped for sale.*

The hospitality of Señora B—— and her family rendered a short stay here very agreeable. Zepaquira has a cathedral and three churches, the former much injured by an earthquake. A sheep costs two dollars, a fowl or a dozen eggs a real, an arroba of wheat (25 lb.) two dollars.

On the hill going to the mine I observed a

* An arroba of crude salt at the mines costs 3½ reals, 4¼ when purified, and 7¼ when made up in blocks for sale. From 30,000 to 60,000 arrobas of salt are made every month, and the Government derives a revenue from it of 1,000 dollars a day.

species of celery. Before starting to return, I went out snipe-shooting on the morass, close by the river, which winds through it in beautiful curves. Quantities of ravana with a blue flower, verbena, and a red-flowered astureion, on the dividing embankments. Saw boys playing at "marbles" with a fruit called mararay.

In the way from Zepaquira, and not far from the town, I crossed the handsomest stone bridge in the country, known as Puente del Comun, and bearing an inscription informing passengers that it was built by the English taken prisoners during the siege of Carthagena by Admiral Vernon in 1739, whose monument in Westminster Abbey informs us that he "took Porto Bello with six ships, and at Carthagena conquered as far as naval force could carry victory."

The iron mine of Pacho is about fifteen leagues from Bogota, and about 7,000 feet above the sea. The copper mine of Monaghira is about two days' journey from Zepaquira, and there is an iron mine at Samaca, ten leagues from it, where there are some English miners and their families.

Noticed the tigeretas or scissors-tailed falcon; and on the plain east of Bogota is a caprimulgus or goat-sucker, whose body is only eight inches long, with a tail two feet in length, being a nearer approach to a bird of paradise in appearance than any other yet known in South America.

In one place, after a heavy shower, where a wooded slope descended to the road, I observed on it a number of those huge earthworms nearly a yard in length, such as I had seen nowhere but in the Organ Mountains near Rio Janeiro, as already mentioned. Some similar peculiarities of soil may be found hereafter. The hills, as usual, of sandstone, granite appearing where the road passed over their summits, a formation that continued all the way back to Bogota.

Left Bogota for Carthagena, passing about eight leagues from the road over the open plain to Botteglo. Slept there. On approaching the edge of the hills, noticed ridges of sandstone and trachyte running due east and west. Plenty of water on the plain. On the way, stopped at a venta, Anglicè (a public-house), and asked if they had cerveza (beer). "No, señor, pero tenemos pally ally!" (pale ale).

After a ride of five or six hours, I passed through Villeta to La Venta de Cime, then kept by an Englishman named Teasdale, who was absent; but I occupied a good room. After a short march from Botteglo, the edge of the plain known as Robles, or the oaks, is reached, and a wild, precipitous descent between two banks immediately commences. The increasing heat soon made itself felt. A magnificent view *is* suddenly opened of low, rugged mountains

covered with forest, and the valley of the Magdalena densely shrouded with driving and undispersed clouds, over and amongst which the river, seen at intervals, literally appeared to be wandering, until the eye discovered the two highest peaks of the snow-covered Tolima only just visible above them. Here were vegetable ivory trees, florepondios, red fuchsias, and datura trees. The grey sandstone cliffs of the plateau I had just quitted were standing out in very bold relief over the forest, north of the defile. Lower down were palms, plantains, bamboos, tree ferns, coral trees (in blossom), aloes, bromelias; climbing-plant with beautiful rose-coloured flowers resembling lilac blossom in shape, known at Carthagena as "la bellissima;" granadas, or wild pineapples; a cedar; another bearing a bright yellow blossom; the caña brava, or palmated reed, from which the Panama hats are made; and numerous others.

At a short distance from La Venta is the hacienda of La Esmeralda, the residence of Mr. W——, an English gentleman; and thither I repaired to breakfast, and spent a very agreeable day at a comfortable English residence; and was also treated to some excellent music.

The elevated district in advance, about 6,000 feet above the sea, is known as Alto del Trijo (the high country where wheat can be grown).

The thermometer averages 70° to 74° throughout the year.

Mr. W—— showed me some wax-palm trees, of which he was encouraging the growth. The trunk is covered with a very thin coating of wax, which is scraped off. The seed is scattered by the wind, and springs up spontaneously on cleared ground.

There are three kinds of aloe in New Granada; the Mexican maguay is not indigenous there; the pita aloe has a long yellow stalk; the variegated aloe is the figue, and the fibre of these two last is used for making ropes.

On the west bank of the Cauca, and about north-west of Bogota, is the gold mine of Marmato, and another purino belonging to the New Granada Mining Company. A considerable quantity of gold finds its way thence to the fair at Mompox, on the Magdalena, where there is usually a great deal of bartering. Señor Don P——, at Bogota, was good enough to give me a small piece of ore, found on the surface, which proved by assay to contain about 50 per cent. of gold. The left bank of the Magdalena is a great tobacco country. The interior of the cigar is made of the best tobacco, and is then wrapped up in a large silky cinnamon-coloured leaf. Was told that in 1840 a vast drift of sand suddenly descended through a ravine and covered four square leagues, burying the tobacco crops; and, according to

tradition, there has generally been a destructive visitation of the kind every seventy years. At Lagunilla, due west of Bogota, and near the great tobacco establishments at Embolina, the quantity and price both of bark and tobacco is much affected by quarrels with the Bolivian Government, who can stop the bark trade; and also by internal disturbances affecting the distribution, and producing a glut in the tobacco trade also, which is sometimes monopolized by the Government for the time being. A great quantity of spurious bark is then also sold.

Heard of an answer given by a peasant, confusing time and distance: "Andando despacio (slowly) una legua. Andando apriesa (quickly) media legua!" and a native seeing "London" marked upon some English goods at Ambolina, and inquiring what it meant, being told it was the capital of England, exclaimed: "Que bobos son los Ingleses! porque no lo llaman 'Londres' —como se debe llamar?"

I was too much knocked up to think of extending my journey to Antioquia (discovered 1537) by crossing the central one of the three cordilleras which bounds the left bank of the Magdalena, and the right bank of the Cauca. It is customary to traverse part of the mountain passes in crates carried by Indians on their backs.

The Santa Anna silver mine lies in the province about two leagues west of the Magda-

lena, and at a height of about 2,000 feet, at the foot of the snowy mountain known as El Paramo del Ruiz, and about two hours' ride from Honda. There is gold both in Antioquia and the adjoining province of Choco; but the risk from climate is so great, that the emigrants going to California but rarely visit the auriferous localities. Antioquia is so named in consequence of its having been originally colonized by Jewish families, driven from Spain in the reign of Philip II., who were probably induced to settle there by hearing of its productiveness of gold. I met a family of Antioquians in New Granada, and there was no mistaking the handsome Jewish features. A species of fly makes terrible havoc amongst the cattle on the farms there, but confines its attacks to the more ordinary species, known as ganado de color. It is a curious fact that it makes no impression upon the ganado fino, or the cattle known as orejo negro (black-eared), their hide being of double the thickness, and weighing from 35 to 40 lbs.

I heard of a case of cholera in an arriero being cured by a large dose of carbonate of magnesia, followed by two glasses of rum mixed beforehand with guaco, gum, and cedron (a very strong bitter nut steeped in water of ammonia).

From La Esmeralda passed the Alto del Trijo, and descended the mountain to the village of Guaduas, or "the Bamboos." The heat

much increased. October 8, thermometer 75° in shade at 8.30 A.M. Dismounted at the house of Colonel Acosta, whose hospitality to European travellers was universally known. His negro servant had a tame toucan (yataro), of the same habits as the macaw, and was often giving his his blessing to those who noticed him by repeating the words "Dios te dé ——" (God give you ——), leaving out the word "felicidad," so much coveted by an opera singer; the same words, with the same omission, being usually heard in return for charity bestowed in this part of the country.

The bamboo thickets on the plain were very numerous and graceful, and I again noticed the apio, or wild celery; yellow and insipid when boiled. Ate the sapoté, a cooling and excellent fruit, in a husk somewhat resembling that of the colocynth, but smaller; it is also known as the hispera.

Passed two days at Guaduas to break the too sudden descent into the heat. Rode in about an hour and a half to a place known as the Agua Clara, passing over the ridge there to a spot whence I enjoyed an extensive and magnificent view of the valley of the Magdalena, there 900 feet above the sea, and the Quindiu, or Tolima and Ruiz ridge (16,000 feet) on the opposite side; but it looked bare, and I did not think it improved by the total absence of cloud.

On the descent towards Honda was suddenly asked if I could bleed, and dismounted at a cottage to see a man who had been bitten by a snake. I found a powerful young peasant of about twenty years of age sitting upright with his eyes open, apparently in a state of torpor, his face much flushed, his pulse low but quick, with a sensation of heaviness in his head, of which they told me he had complained a great deal, but seemingly not otherwise in pain. He had been bitten in the hand, which was swollen; and his friends wanted me to open a vein below the ligature they had tied above the elbow, evidently with the impression that it would take away all the diseased blood from the hand and arm only. This, however, rightly or wrongly, I declined to do. I found they had already given him cedron, and, strange to say, they had some hot water actually ready, in which I immediately put his feet, which gave him decided relief, indicated by a slight nod. I then administered, at intervals of about ten minutes, small doses of ammonia, brandy, and guaco, from a bottle which had hitherto happily remained unopened in my saddle bags; and replenishing the hot-water bath, I was very glad to observe that at all events he did not seem to be worse when I was obliged to leave him, after an hour's doctoring. I am sorry never to have heard the result. I saw the snake, which had been killed,—a small, but very deadly species,

about two feet long, of a slight greyish brown colour, known as the equis, from a joined series of marks resembling the letter X. Afterwards saw another of the same species killed close to Carthagena.

At sunset, Oct. 16, arrived at the ferry opposite to Honda, where the Magdalena is joined by the smaller stream of the Yuali, after a course of about sixty-five miles from the westward. A sand-bank is formed by the back eddy of the stream. The baggage was not all crossed until the morning, as its transit occupied some time. Spent an agreeable evening at Mr. T——'s, meeting several English and American ladies and gentlemen.

Honda is one of the most interesting places in the country. Next morning I ascended the eminence below the town. Blue hills visible in the distance over the plain to the southward. On the left bank the country more open. The town is small but very picturesque, with white houses, red roofs, and huts with gardens, palm-trees, &c., owing its position and importance to the river not being navigable higher up. It was much damaged by an earthquake in 1805. Observed old Spanish fort, and an old French gun marked with "La Fansette—ultima ratio regum" and "Nec pluribus impar. 1731. Berenger." Woman carrying large fish just caught. The river sweeps between the eastern hills and

the town with a rapid and muddy stream: its banks rise in terraces. Mr. T——, an accomplished geologist, told me that granite *in situ* and syenite were common, with a schistose formation in other places; and that on the river Naré, one day's voyage downward, there are limestone cliffs about 700 feet high, containing a somewhat coarse-grained but perfectly white marble, and that boats sufficiently large to carry away blocks of it could ascend to within half a mile.

Heard a story of a lawyer telling an old woman that it would cost 12,000 dollars to keep open a litigation about some property, so that she might have the full enjoyment of it for her life, she being supposed to have really no title to it.

Oct. 20.—Left Honda in a barge to join the steamer a few miles below. A number of a species of fishing eagle, which in November are said to pass over the ridge behind Bogota on their way to the Amazon. The steamer descends at the rate of about eleven knots an hour. Capt. Robinson told me we were passing over a bed of iron ore. Monkeys in the forest. After about thirty miles the dark waters of the Rio Negro join the muddy stream of the Magdalena, and soon afterwards we arrived at the village of Buena Vista, containing about a dozen thatched houses, on the left bank. A terribly hot night.

Immediately below passed Le Nivel; and about mid-day stopped at Naré on the left bank, at the mouth of the river of the same name. There is a way up the side to Antioquia. The white marble cliffs were in sight, and there are gold washings up its beautiful stream. The Magdalena here is about half a mile in width, and its banks are covered with thick matted forest.

Oct. 22.—A cool rainy morning. Beautiful variety of foliage. Blue and yellow macaws in pairs, and flying high as usual. Tree with white blossom, of a red colour beneath. Three hours after starting, passed the mouth of the Carari river on the right. Saw wild Indians there who had driven out the inhabitants of a house on the left bank. Thermometer 80° in the shade. On deck at 9 A.M.; weather cloudy. Forty leagues from Naré to San Pablo, and ten more to Mompox. Jaguars on the bank so numerous that cattle were shut up at night. Stopped at Barillo. In an hour and a half passed the river of Caña Veratis, its headwaters distant 150 miles. A very pure gold is found in the sands. Twenty-four Englishmen had ascended thither, but all but two died of fever. The mountains dividing this valley from the Cauca very picturesque, covered with vast masses of forest. Another hour brought us to Puerte Nacional, a single hut; the town of Ocaña (the capital of a province of the same name) being about a league inland.

Blue and lofty mountains visible on the right bank. Cloudy: thermometer 86° in shade at noon. Afterwards passed village of El Banco on the right, where there is an unfinished Spanish church; and shortly afterwards the place where the Nobo branch leaves the Magdalena for the Cauca. Slept on shore at Mompox, a larger place than Honda, with a pretty row of teiba-trees on the bank in front of the houses. Chief trade in caoutchouc, sugar, and aguadiente: manufactory of water vessels. The left bank covered with groves of oranges, mangoes, &c., for about three miles before arriving at the town; also noticed the trees producing the citron, bark, and vegetable ivory, in the forests. Thermometer 80° at 8 P.M.

The course of the Magdalena from Honda to below Baranquilla is about 580 miles. Stopped at Pinto to take in wood; and at about thirty miles below Mompox, the Cauca, of about the same size, joins the Magdalena with a broad, clear, and smooth stream. The surface of the latter is expanded to a mile in width, with the appearance of a fine lake. The banks of the Cauca are flat, covered with forest, some blue hills peeping over it to the westward. Saw the lignum-vitæ tree in full yellow bloom; and afterwards passed the foot of Palladra, or Plato, on the right bank, and Tenerife, with a few houses and the remains of a fort, said to have been

destroyed by the buccaneers. Wild fowl not so numerous as I expected; plenty of other birds in the forest. The number of alligators was surprising; there was one on almost every little grassy open space; we looked for them at every turn. One I observed on a bank in the distance, on the other side of the broad river, was of a size approaching the fabulous—not less, probably, than thirty-five feet. In no river in any country, Nile or Ganges, had I seen one so large.

At Calamos I left the steamer and her efficient and obliging captain, after four days' voyage from Honda. The ascent is made in about ten days; Humboldt occupied fifty-five days in a sailing and rowing boat. About twelve miles above the valley of Calamos we passed a large island, in which tame cattle have run wild, and parties are made to shoot them. Peccaries and pacos also abound there.

A few days before I arrived at Calamos the finest negro in the place had been carried off by an alligator of immense size. He was seized while drawing water. The brute soon drowned the poor fellow, but rose again with him, raising his head out of the water, and shaking his prey, according to their custom, into a more convenient position for mastication. I should have thought it the same that I had noticed, had I not heard that the villagers had successfully baited a large

hook, and avenged the loss of their companion by killing the alligator.

> Canes currentes bibere in Nilo flumine
> A crocodilis ne rapiantur traditum est;*

and without having asked any question on the subject, I was told that the dogs in the Magdalena villages were so well aware of the danger, that they continually moved on as they lapped the water of the river.

Found a tolerably comfortable fonda at the village. I was provided with an introduction, and hired mules and arrieros for the land journey to Carthagena. In the forest was the balsa, or raft-tree, with a very large stem, and a leaf like that of the lime-tree. Huge ceiba caoutchouc trees, lignum-vitæ, bamboos, bromelias, and the green smooth-barked brea-tree I had seen in the forests of the Argentine Republic, a great quantity of the "old man's beard" moss being in festoons upon the larger ones. Brilliant butterflies and humming-birds everywhere. A fierce but small species of wasp is in the habit in these woods of attacking without the slighest provocation any one who happens to be passing near their nests. Some half-dozen of them suddenly made their appearance, alighting underneath the rim of my hat, and inflicted a somewhat

* Phædri Fabula, xxiv.

severe punishment before I could ride fast enough to get away from them, a matter not very easy on one of these forest paths.

Arrived and slept at Stanislao, on the banks of the dique, or canal, which I crossed late by moonlight. Next day to the negro village of Caña Veral. Glad to have my own bedstead with me. Beautiful and numerous butterflies in the way; also observed the creeper, or wild vine, of which sticks are made.

October 27. — Thence towards Carthagena, breakfasting at Turbaco, where there is a good posada. By the pathside was matted forest and lofty shrubs, completely roofed, and interlaced with creeping convolvulus plants in beautiful flower.

A short time afterwards I revisited Turbaco in company with Mr. A. Kortright, H.B.M. Vice-Consul, and Dr. P——, an American, which good society procured me the favour of an invitation to an excellent dinner with General Santa Anna, the ex-president of Mexico, whose house, much resembling an Indian bungalow, with gardens and a stable full of fine horses, occupied one side of the green. He invited us to take an early ride with him the next morning to view his estate at Buena Vista in the vicinity. As yet he had not built a large mansion there, but there were several detached cottage residences on an open hill in the middle of the forest, and

he was clearing the ground for corn and maize, cutting new rides, making roads, &c., so as to open the most picturesque views in all directions which lead to his farming establishment. Near it was a capital bath-house over a running stream, from which we saw the Señora returning on horseback, with her beautiful hair streaming behind, according to the present fashion. The general, who lost a leg on the Mole at Vera Cruz, during the attack under the Prince de Joinville, is a most distingué-looking and gentlemanly person, and taller than most of his countrymen. I had seen him pass by Jalapa on his return to Mexico. He seemed to take the greatest interest in his new purchase, and is also much devoted to the cockpit, several magnificent birds being tied up near his stables.

On one of the rides saw a centipede just killed, fully ten inches long. I was told that this animal is more dreaded than any other creeping thing, its bite being attended with a bad fever for two or three days. Inoculation had been tried with viperine poison on some animal to mitigate the danger of a snake-bite; I do not know with what success.

We also visited the celebrated mud volcanos in the neighbourhood of Turbaco, and found, after a ride of about three miles, two low bare mounds in the forest, raised about fifteen feet, covered with hardened mud split and cracked

with singular regularity. Humboldt, who with Bonpland was the first to discover them, speaks of pentagonal and hexagonal prisms. Counted from fifteen to twenty of these volcanitos. The craters of these two were rather more than a foot in diameter, and at intervals of a few seconds a column of muddy water of about the same temperature as the atmosphere is heard to ascend with a gurgling noise, and rises just high enough to allow a little now and then to flow over the side, and throwing up bubbles of what Humboldt ascertained to be azote, extinguishing flame.

The oleander, such as I had seen at the foot of the Himalaya, and also at the mouth of the Indus, was growing here in the court-yard of the posada.

After a ride of a few miles through the forest, and a lower underwood of shrubs so completely covered with convolvulus netting that they assumed the most grotesque and seemingly artificial shapes, we arrived at an eminence, from which the road begins to descend towards Carthagena, the white fortifications suddenly becoming dreamily visible, with the Atlantic behind them, through a heated atmosphere of vapour that seemed to have been steeped in yellow ochre; and I gladly entered them after a journey of 840 miles in a straight line from Guayaquil, and proceeded to the hotel. I found a circle of people round a tall, bony Yankee skipper,

who had placed himself (in joke) in fighting attitude, saying (touching his left arm),—"Here's seven months' sickness;" (and then touching his right one), "and here's sudden death. Now, come on!" I remained here some time, to wash out the effects of nigua bites, &c., and trying to recruit, in its heated atmosphere, after the incessant watchfulness and fatigue of travel, by a sea-bath every morning, where a convenient reef is considered to render it safe, by keeping off the sharks.

CARTHAGENA.

Carthagena (originally Calamar, so named from a fish caught there), and its perfect and beautiful Spanish fortifications, has been often described. Modern artillery would, I presume, soon destroy these latter. The best promenade is on the ramparts close to the sea, where a breeze may be generally inhaled from about October to April: then follow rains and hot weather until June, when the veranillo, or little summer, occurs, with occasional breezes. The weather during the next three months is very hot, with the wind from the south; the cool breezes come from the north-east, or trade winds. The negroes have an intense horror of rainy weather, and

usually refuse to work, alleging that exertion is followed by fever and erysipelas, which exposure to moonlight is thought to increase. Lockjaw, they say, may be produced by dipping the hand in warm and then in cold water. The cholera has been termed "el Judio errante" (the wandering Jew). It is a remarkable fact, and one which would go far to prove its epidemic nature, that during the prevalence of cholera in the hot months of 1849 the turkey-buzzard vultures entirely disappeared, and came back as the cholera ceased. They went away when it got a little worse, and came back again when its virulence was slightly abated.

The harbour of Carthagena, a mile and more in width, is closed by an island. The Boca Chica, or channel on the furthest side of it, and through which ships can approach, is nine miles distant. The near side, or Boca Grande, has been artificially closed by a stone dyke since the attempt of Admiral Vernon in 1741.

The mouth of the dique, as the old Spanish canal from the Magdalena is termed, is about eighteen miles distant. It wants clearing, as boats only can pass on account of the weeds, which in some places are so matted that a person may walk on them.

The canal of Baranquilla, otherwise known as the Caño de la Piña, has been commenced from the latter place on the coast north of Cartha-

gena, but is not at present proceeded with for want of funds. The people say, "Tax us, and you do the work." The Government say, "You do the work and give us a share of the profits, you taking the rest." So nothing is done. The towers of the San Francisco convent, near the barracks, are a land-mark for approaching ships. Great quantity of fish. Saw a lady carrying an open umbrella by moonlight.

November 11.—Anniversary of Independence: much inebriety. Tirade about Bolivar and liberty in the newspapers. Numerous masquerading parties, and visiting all day; and I am glad to have the opportunity of acknowledging the kind hospitality of the American Consul, Mr. Sanchez, and his family, whose house was open every evening for the reception of English and other visitors, properly introduced. Amongst others, I noticed one masked party with a political meaning. Some young men, whose white hands belied their pretence of being peasants, were leading and goading on, not without incessant trouble, a young bull with a stuffed figure on his horns. The bull represented Murillo Toro, a political opponent, and the stuffed figure was General Mosquera, the President, both of whom were supposed to be muzzled and dragged about by the partisans of Ospina, of the Church party, since President, but who are now beaten by the Liberals under

Mosquera. But the passers-by in the street where I met them were cruelly indifferent, or did not seem to understand the intended joke, and the bull appeared to have his own way much more than the Ospinistas.

A tailor, one of the best in the city, who had faithfully promised to execute an order by this day, came to excuse himself, most amusingly tipsy and in the best of humours, and said that I ought not to be angry with him for that day, the morrow, and the next after, at least.

A military band was performing on the parade ground, where there was a numerous assemblage of promenaders, and struck up "The Sultan's March;" myself, most probably, being the only person there, excepting the performers themselves, who could recognize it.

The Popa, or only hill which commands the city, is of limestone, about a mile distant, 600 feet above it. A telegraph on its highest point, and a wall along the ridge for military purposes. An inscription within the building says that it was founded in 1608, and that a Jew, named Mendez, was burned there in 1677. A dense vegetation covers its sides, amongst which are cacti and mimosas, and the identical tree amongst whose terrible thorns Humboldt relates that a husband was thrown by his wife and her paramour.

A fine view of the whole line of the city in

clear relief against the blue ocean, is obtained from the ascent, with the white and beautifully finished inner line of fortifications in the middle distance; and in the foreground were palms, cocoa-nut trees, and numerous flowers, amongst which the hibiscus, known here as "la reina de los flores," was conspicuous from its brilliancy. Between the inner line and the city rise the picturesque ruins of the old fort, nearly covered with a matted vegetation, and probably built soon after the city was founded. I should say that, with the improved artillery, it might still form a battery of formidable consequence, should it ever become necessary to defend the city against a naval force; and, to judge from the accounts we then received, of the replies of the Government at Bogota with reference to the demands on account of the McIntosh debt made on behalf of British creditors, such a contingency did not seem very unlikely to arise, though, happily, such was not the case.*

Owing to various causes, Carthagena, once the great emporium of commerce on the Spanish Main, and also the principal naval station on the

* Mr. Mark had long been using his best endeavours, and, with his assistance our new minister, Mr. Griffiths, at last succeeded in making an arrangement by which, as is well known, fifteen per cent. was peacefully secured on the total receipts at the different custom-houses. A large part of the *debt* must, ere this, have been paid off.

Atlantic coast, is now comparatively in a state of great prostration. During the Spanish rule it was maintained as a great military fortress, with an adequate garrison, and the harbour always held a large number of vessels of war—guarda-costas, and lanchas canoneras or gun-boats. There were also, of course, numerous employés in the different public offices, and the result was a large circulation of precious metals, the system of paying in paper being unknown. Large subsidies were frequently coming in from the vireinato (vice-royalty) of Mexico, and the generalito (governor-generalship) of Peru. Another circumstance which tended to increase its commercial prosperity was its being the only licensed (habilitado) port from Maracaybo to San Juan de Nicaragua, for the introduction of merchandise, so that nearly all the coast trade was concentrated on this favoured spot. These days have long passed away: disunion, civil war, and the absence of enterprise have reduced the city to a comparative state of poverty, and distress and absolute want in the lower classes.

After the conclusion of the Peninsular War, Spain made an attempt to recover her lost dominion over her colonies, and in 1815 a large naval and military force was despatched to Carthagena, which surrendered after a siege lasting from September to December. Most of those who had taken an active part in the defence of the place

fled on board the ships in the harbour and emigrated. During the siege, the inhabitants suffered great hardships. The Popa was successfully defended by General Soublette during a whole day (Nov. 11) against the *élite* of the Spanish troops; and the city authorities, who were suffering for want of supplies, sent up to the exhausted defenders twenty-two dried ox-hides to make soup, being all they could part with in the shape of food. Many cruelties were committed on both sides after the siege. The city remained in the possession of the Spaniards for six years, until 1821, when it was besieged and taken by the patriot forces. After the death of the Liberador Bolivar, in 1831, it was attacked in the subsequent civil war, and taken, after a short defence, by the self-styled Liberal party, and again attacked by, in 1841, and successfully defended against, the adherents of General Ovando, before his deposition.

In 1836, when Mr. Russell, the English pro-consul at Panama, was imprisoned, and the British flag insulted by the authorities there, the British Government demanded satisfaction, and there was an expectation that the British fleet might make some hostile demonstration in support of the demand for redress. The governor of the fort and province of Santa Marta issued a proclamation, finishing with these words—

"Grenadinos! contando con el corage de los

habitantes de esta provincia, me atrevo a asegurar que si llega por desgracia a resonar el clarin de la guerra la soverbia Albion morderà el polvo en estas playas, y aprenderà a respetar los direchos de un pueblo libre.

"Ingleses! los Vencidores del fiero Leon de Iberia no se asuntan con relinchos de cavallos marinos!" (Englishmen! the conquerors of the proud Lion of Spain are not to be frightened by the neighing of sea-horses!)

I have already alluded to the subject of emigration, and a certain jealousy of the old Spaniards; but the best opinions agree that by skilful management Spain might again recover great influence in these countries. General dislike to the increase of North American interference might be turned to account by Spain now that her power is in the ascendent; and in accordance with the improving liberality of the times, it may be safely asserted, as I have already mentioned, that any number of Spanish immigrants would be well received in New Granada, provided they brought some capital with them, and conducted themselves with prudence.

Heard that the Goajinos Indians, eastward of Santa Marta, have a custom of placing salt before a stranger; but should an Indian woman become a mother by a stranger, the child is immediately buried alive. Those on the Darien coast are remarkably honest, as traders with the

English, but dislike the Spanish race. A ship calls and leaves part of its cargo with a known and respectable person, returns after a time, and the owner finds the money ready, and everything accounted for.

An English gentleman who had made a coasting excursion to the southward for sporting purposes, told me that in the river Zinu the wild-fowl rise with a noise resembling distant thunder, and positively lessen the daylight by their immense numbers. He shot pavos reales and pheasants, and suddenly came in sight of a snake, at which the Indian with him exclaimed "Coral, coral!" and could hardly believe his eyes when, after killing it, he found it was nine feet long, and yet presented to all appearance the external colour of a coral snake, which seldom exceeds two feet in length. Byam, in his "Central America," speaks of one which he considered of large size, being a yard in length, and adds that the bite of the coral is fatal in a very short time, not giving time to make a will or a confession. It seems to be more dangerous than the rattlesnake, and the latter more so than the cobra. Ulloa says that they are four to five feet in length; and that at Carthagena there are centipedes a yard long, which is an exaggeration. He also says that a scorpion placed under a glass with some tobacco fumes will sting itself to *death*. Lord Byron has somewhere made a

similar remark.* I noticed an insect in a collection in Jamaica which seemed to unite the amiable qualities of the scorpion and the tarantula, resembling a small specimen of the latter, with a tail and sting somewhat like that of a scorpion. I was told that it came from the Isthmus of Panama, and that it inflicted a very severe wound.

The scenery on the Isthmus is made up of dusty stations in deep ravines, and steep-sided hills covered with dense forest, with more open country near Panama.

The railway company obligingly permitted me to pass free to Panama and back to Aspinwall, a small town chiefly made up of a large collection of stores, capable of supplying every demand of the passengers to California. I saw a large boat-load of filibusters return after the final success of the Costa Ricans. They arrived there in a state of absolute destitution, and gave three cheers for the English ship which had afforded them a passage.

I was struck with the appearance of Panama; there was something venerable in its aspect that told of the times and the rule of the Old Spaniards. Its narrow streets contain some good hotels and shops. From the balcony of the drawing-room at the English Consulate, where I

* "Ulloa's Voyage: "Pinkerton's Collection of Travels."

had the pleasure of attending the reunions of Mr. Perry, presided over by his daughter, Madame H——, there was a beautiful view of the lake-like bay, its islands and the opposite and low forest-covered mountains and ridges on the coast meeting the horizon to the southward.

I have already spoken of a ship-canal across the Isthmus as an affair of world-wide usefulness and interest, and which will surely be some day cut through from sea to sea.

The memory of the sanguinary struggle between the Americans and the free negroes was not quite devoid of interest, on the question as to which party was the most to blame. From all I could hear, the negroes have become a very independent race, formidable from their numbers, and not unlikely to commence a disturbance upon any provocation; whilst the first causes of their being so, might be traced to the unadvised and insolent conduct of the Americans, who were frequently inebriated when they landed at Chagres, and often met their deaths through their own imprudence during the ascent of the river, their bodies being frequently seen floating down towards the sea. I heard of one American who took a shot at a negro to try his revolver, and killed him; he and his three sons then ascended the river. At a convenient spot a party of natives, who pretended to enter into friendly conversation with them, contrived to

make a hole in their boat, and then turned it adrift to sink with the murderer and his sons.

It was originally a question whether the province of Maracayibo and its beautiful lake should not more properly have been assigned to New Granada than to Venezuela. The Maracayiberos have more intercourse with New Granada than with Venezuela, and their sympathies are extended to them in the same proportion. Bogota may be reached from the coast by passing from the upper end of the lake to Ocana, whence there is a regular bridle track.

The North American Revolution occupied about six years—from 1776 to 1782. That of South America may be said to have commenced in 1820, when provisional governments were appointed simultaneously at Buenos Ayres, La Paz, and Venezuela, before any fighting had taken place, and to have been terminated by the surrender of the castle at Callao, January 19th, 1826.

Generals Paez of Venezuela, Soublette and Mosquera of New Granada, and Flores of the Ecuador (whom Bolivar called the Napoleoncito of South America), are the most eminent of the survivors of their great chief. General Santa Cruz was an officer in the royal army, and was taken prisoner by the patriots. Washington, the great Northern "Liberador," had a united people and the Saxon mind to assist him; no

jealous compeers, no intrigues, no bigotry to contend with; and no one ever breathed a word against his fair and justly-cherished fame. Bolivar, with a united people, had all these difficulties: bigotry, ignorance, and selfishness, dormant during the great struggle with a common enemy, broke out when it was over, to evince an active vitality that frequent disturbances prove to be still unquenchable. Bolivar was accused previously to his fall "of inaugurating a reign of tyranny, of throwing off all respect for public opinion, of violating and suspending a multitude of laws, annihilating the liberty of the press and public instruction, of suppressing the elections and public associations, of destroying the public journals, and of bullying, by means of his aides-de-camp, those who wrote in opposition to him; of establishing a military authority by increase of the army; of restoring convents of fanatical friars which had been suppressed by law; of prohibiting the teaching of intellectual and political science, and substituting that of a barren theology; of ruining eminent citizens by dispossession; and of having published a 'Decreto Organico,' derogating the Constitution of the Republic; substituting an arbitrary rule, and making useless the office of Vice-President elected by the popular vote."

He had been elected Dictator (June 13th), and his opponents wondered at the use he made of

his power. Then followed the attempt to assassinate him, and the death of Cordova, as already mentioned, the hero of Boyvea, Junin, and Ayacucho, consequent on his raising the standard of revolt in Antioquia. The Liberador convoked a Convention for January, 1830. Paez, his rival in Venezuela, sided with the Junta, which then declared the independence of Venezuela of the Government of Bolivar. In the end, the Congress refused to support his re-election; and Joachim Mosquera and Caicedo were elected as President and Vice-President instead of Bolivar, and his nominee, Canabal. Bolivar retired to Carthagena. The Bolivian party in the Chambers wished to have him elected as "Libertad Presidente," and at his death to call a French prince to the throne. Such is the story.*

Meanwhile Bolivar was dying; "the man who from the white summit of Chimborazo had thought himself, and justly, the immortal giant of a continent," had retired to his property of San Pedro, near Santa Marta. "Ambition was his forte, vanity his weakness," says the work quoted. He was a man of fruitful imagination, rapid and brilliant capacity, displaying admirable sagacity in his knowledge of mankind. Possessed of no common military genius, great moral courage, and indomitable perseverance, Bolivar

* "Apuntiamentos para la Historia Political y Social de la Nueva Granada."

was at once an orator, a poet, and a hero: the man for a revolution, not a statesman, a philosopher, or legislator; never a republican. "It is recorded," says the author I am quoting, "that he would not join the revolution in Venezuela in 1810, because he saw in it tendencies toward the institutions of the United States. If he were a patriot upon some occasions, he had made up his mind never to be a democrat, in a country, too, where it was necessary to be a democrat in order to be great."

Such is the language of the historian, writing of a man of whose knowledge of human nature he speaks so highly. My own impression is, that a Bolivar would be a most useful person in any of the South American republics, excepting Chili; and that he was not comprehended. The history of these countries is a proof of the fallacy of the above-mentioned opinions, and of the superior judgment of Bolivar; for, in all the revolutions there, the ultimately successful person is the man who mostly resembles him in energy.

He died broken-hearted; his last words being to the effect that his labours for the cause of liberty had been unavailing, because his countrymen were not in a state to receive the blessings of free institutions.

A few years ago a sort of epidemic fit of justice came over the spirit of the people of Venezuela, "ese pais clasico de la libertad i del valor," and

Bolivar's remains were removed to Caracas, borne in a funeral car to the cathedral, and a beautiful sculptured monument, executed in Italy, has since been placed over them.

The room he occupied at San Pedro is kept as sacred to his name, and a bust of him is placed on the spot where his head lay when he died. The plateaux of the snowy range of Santa Marta, visible at sea for a distance of 120 miles, rise from the Spanish Main like a mighty head-stone to his first grave, and the impression given by the earliest or last view of them, gazed upon at sunrise, or watched downward to the horizon from the deck of the receding ship, are necessarily associated with the memory of the great man, the Washington of Columbia, who died at their feet, after having achieved the liberty of half the continent whose northernmost plains are extended beneath and around them.

THE END.

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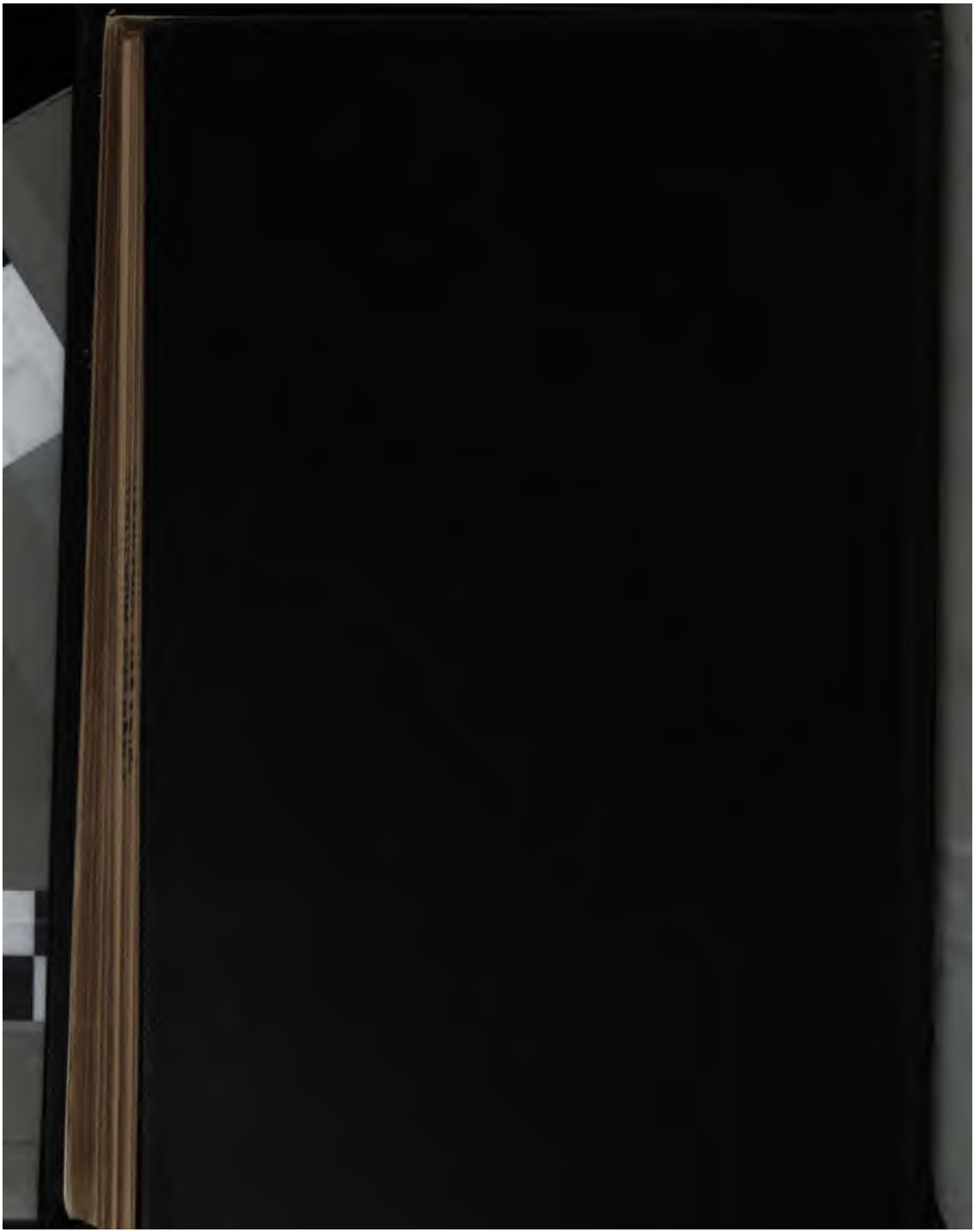
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